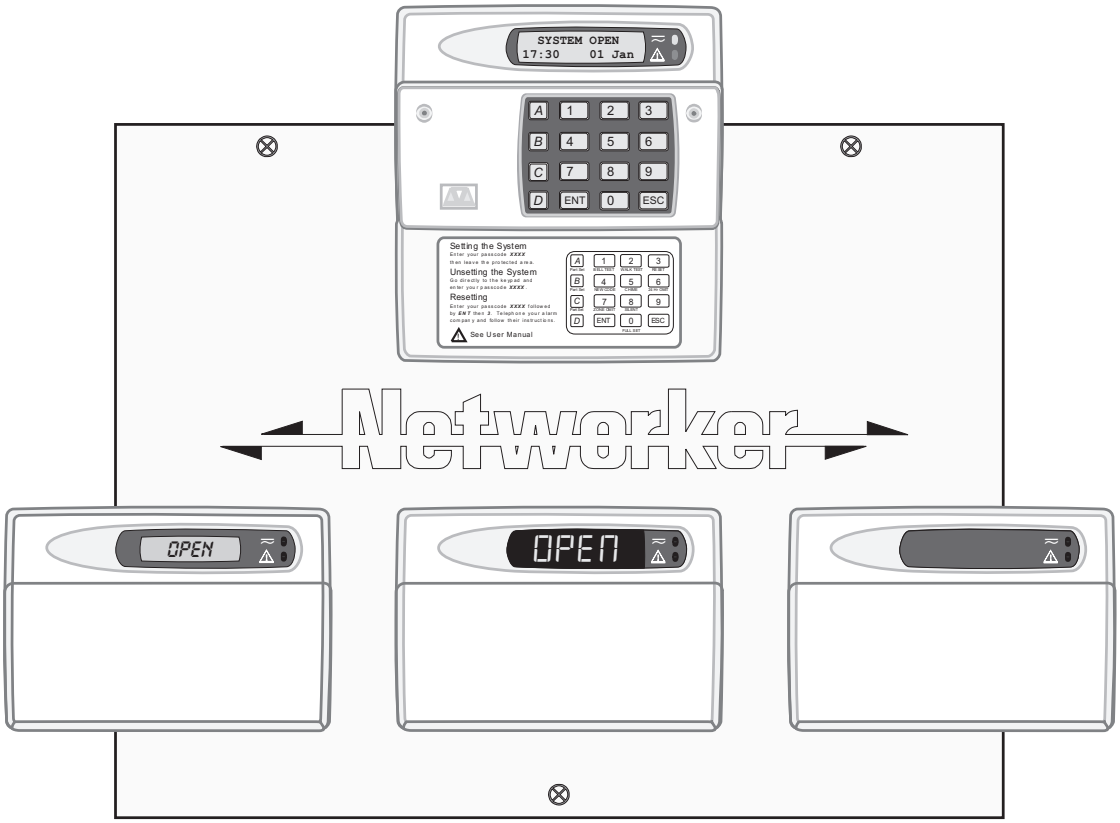
MENVIER SECURITY

TS690 & TS690ID

Intruder Alarm Control Panels



Installation & Programming Manual

COOPER Menvier

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Overview

Introduction

The TS690 range of alarm control systems have been designed to suit small to medium installation sites. The TS690 system can monitor 6 zones locally and up to 8 zones via remote keypads or LECs. All zones can be wired either as double pole or end of line. The TS690ID system can monitor up to 30 zones via ID biscuits and 8 conventional zones via remote keypads or LECs.

Both systems feature local "downloading" via a DCI link and PC, or remote "downloading" via a plug-on digi-modem (DC6) and PC.

Control Panel

The control panel is the controlling unit for the system, it has a power supply and connections for a standby battery. It has the following facilities:

- 6 programmable detection circuits (TS690 only)
- Detector loop for connecting up to 30 programmable ID biscuits (TS690ID only)
- Bell and strobe outputs
- 3 programmable outputs (1 x Voltage free contacts and 2 high current transistorised)
- 5 programmable digicom/RedCARE outputs
- A connector for a plug-on digi-Modem (DC6)
- Extension loudspeaker output
- All system program information and the 700 event log is stored in a removable non-volatile memory (NVM)
- 15 user codes + engineer's code
- 7.0Ah battery capacity

Remote Keypads

Up to 4 remote keypads can be connected to the control panel. Each remote keypad has two detection circuits and a single switched -ve output. All remote keypads have "Power LED" and a programmable "Function LED" (the "Function LED" may be programmed as "Fault" or "Area Set" etc.). There are four types of remote keypads that can be used:

32 Character LCD (NETLCD)

The NETLCD remote keypad has a backlit 32 character super-twist Liquid Crystal Display (LCD) and a backlit tactile rubber keypad. When using the LCD Keypads the text for user codes, part setting modes and circuit identification can be programmed to make the operation and programming of the system easier.

8 Character Starburst (NETSTAR)

The NETSTAR remote keypad has a backlit 8 character starburst display (LCD) and a backlit tactile rubber keypad.

4 Character LED (NETLED)

The NETLED remote keypad has a 4 character LED display and backlit tactile rubber keypad. When using the LED remote keypads, text cannot be programmed but all other system functions are available.

Remote Arming Station (NETARM)

The NETARM remote arming keypad does not have a display and can only be used for setting, part setting and unsetting of the system.

Proximity Reader (TSNETPROX)

You can fit a TSNETPROX proximity reader to the NETLCD, NETARM and NETLED keypads to allow users to set and unset the system using a proximity tag.

TS700 LEC

The Local Expansion Card (LEC) provides two programmable detection circuits and one programmable output.

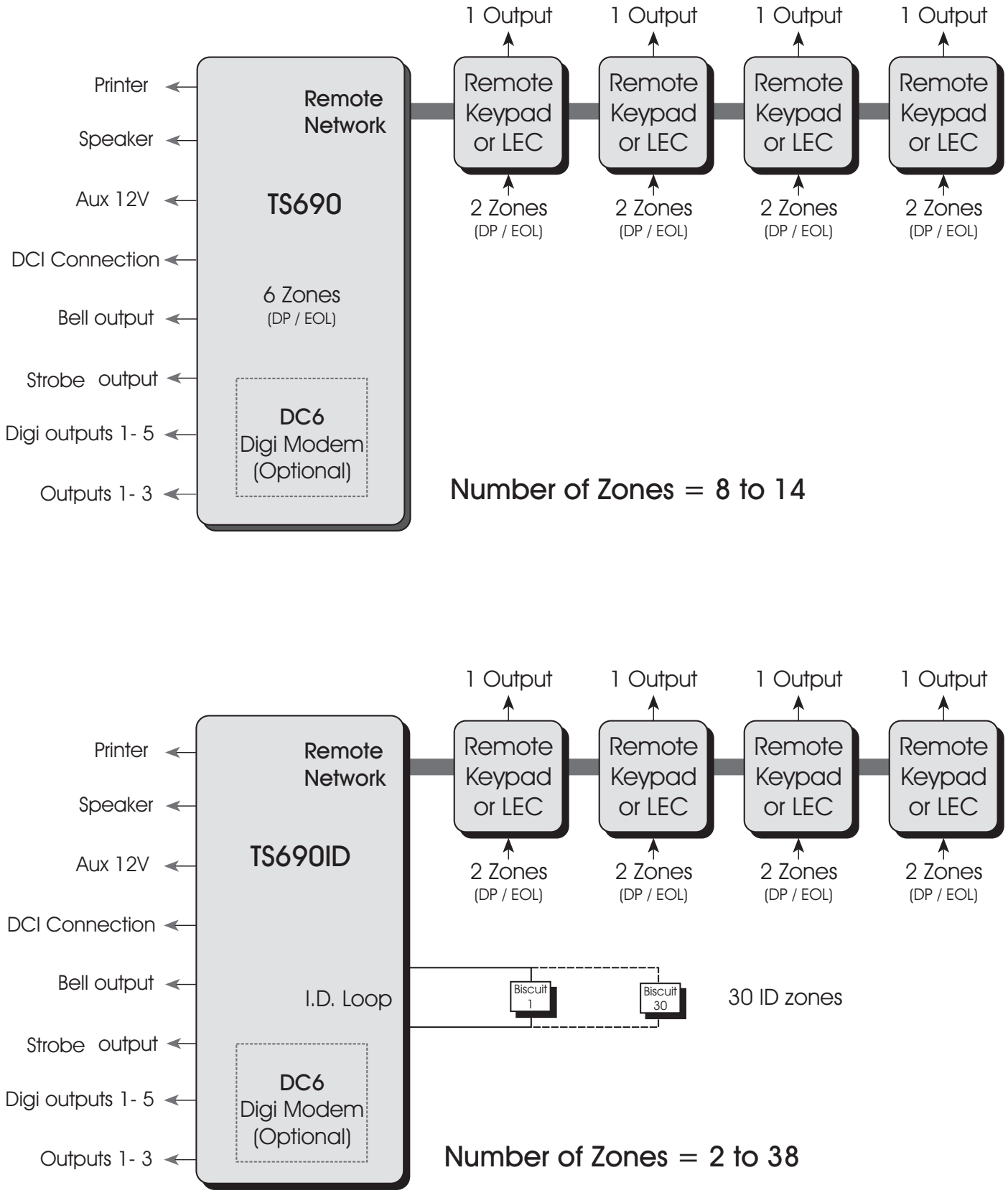


Figure 1. TS690 & TS690ID System Architecture

System Architecture

Specifications

Control Panel

Part No.:	TS690 - 6 to 14 zones TS690M - with DC6 modem TS690ID - 2 to 38 zones TS690IDM - with DC6 modem
Input Supply:	230V ±10% 50Hz
Current:	110mA (normal) 250mA (alarm) with speaker
Power Supply:	1.5A
Standby Battery:	7.0Ah
Outputs 1-3:	1 = Voltage free changeover 2 = Switched -ve @500mA 3 = Switched +ve @500mA
Digi Outputs 1-5:	+ve removed Source 5mA in 12V condition Sink 100mA in 0V condition
Speaker Output:	16 Ohms
Bell Trigger:	Switched -ve @500mA
Strobe Trigger:	Switched -ve @500mA
Dimensions:	384(W) x 312(H) x 95(D) mm
Material:	1.2mm mild steel
Weight:	4.9 Kg
Environment:	-10 to 55°C

LCD Remote Keypad

Part No.:	NETLCD
Display:	32 character Liquid Crystal Green power LED Red function LED
Current:	120mA (normal) 130mA (alarm)
Zones:	2
Output:	Switched -ve @100mA
Dimensions:	150(W) x 104(H) x 30(D) mm
Material:	3mm Polycarbonate
Weight:	282g
Environment:	-10 to 55°C

Starburst Remote Keypad

Part No.:	NETSTAR
Display:	8 character Liquid Crystal Green power LED Red function LED
Current:	120mA (normal) 130mA (alarm)
Zones:	2
Output:	Switched -ve @100mA
Dimensions:	150(W) x 104(H) x 30(D) mm
Material:	3mm Polycarbonate
Weight:	263g
Environment:	-10 to 55°C

LED Remote Keypad

Part No.:	NETLED
Display:	4 character seven segment Green power LED Red function LED
Current:	120mA (normal) 140mA (alarm)
Zones:	2
Output:	Switched -ve @100mA
Dimensions:	150(W) x 104(H) x 30(D) mm
Material:	3mm Polycarbonate
Weight:	254g
Environment:	-10 to 55°C

Arming Station

Part No.:	NETARM
Display:	Green power LED Red function LED
Current:	30mA (normal) 40mA (alarm)
Zones:	2
Output:	Switched -ve @100mA
Dimensions:	150(W) x 104(H) x 30(D) mm
Material:	3mm Polycarbonate
Weight:	254g
Environment:	-10 to 55°C

TS700 LEC

Part No.:	TS700.LEC
Current:	30mA (normal) 40mA (alarm)
Zones:	2
Output:	Switched -ve @100mA
Dimensions:	142(W) x 82(H) x 36(D) mm
Material:	3mm Polycarbonate
Weight:	213g
Environment:	-10 to 55°C

System Installation

Cable Routing

When installing cables, the following should be noted:

- ☞ *Ensure that all Network and detection circuit cables are kept clear of mains supply cables, telephone cables, R.F. cables and cables supplying bells or sounders.*
- ☞ *Screened cable may prove necessary if the Network or ID loop is run adjacent to cables that produce R.F. or are switching high current loads, e.g., mains, telephone, computer etc.*
- ☞ *Mains power supply cables to the system must be connected to an un-switched fused spur that cannot be accidentally switched off. The mains cable must enter the housing via its own cable entry point.*
- ☞ *In larger installations it may prove necessary to fit remote power supplies to overcome excessive voltage drops in the cable runs.*

Remote/LEC Network Wiring

The Remote Network connections are used for connecting either remote keypads or LECs. Each device has 5 connection terminals and therefore a 6 core cable is required for interconnection. It is recommended that the spare core is doubled up with the [B] connection as this will help reduce voltage drop on long cable runs.

Devices can be individually connected back to the control panel (star connection) or looped together (daisy-chain connection). Which ever method of connection is used the distance to the furthest device from the control panel must not exceed 100 metres.

Power for detectors are provided by the [A] and [B] terminals *(see figure 2).*

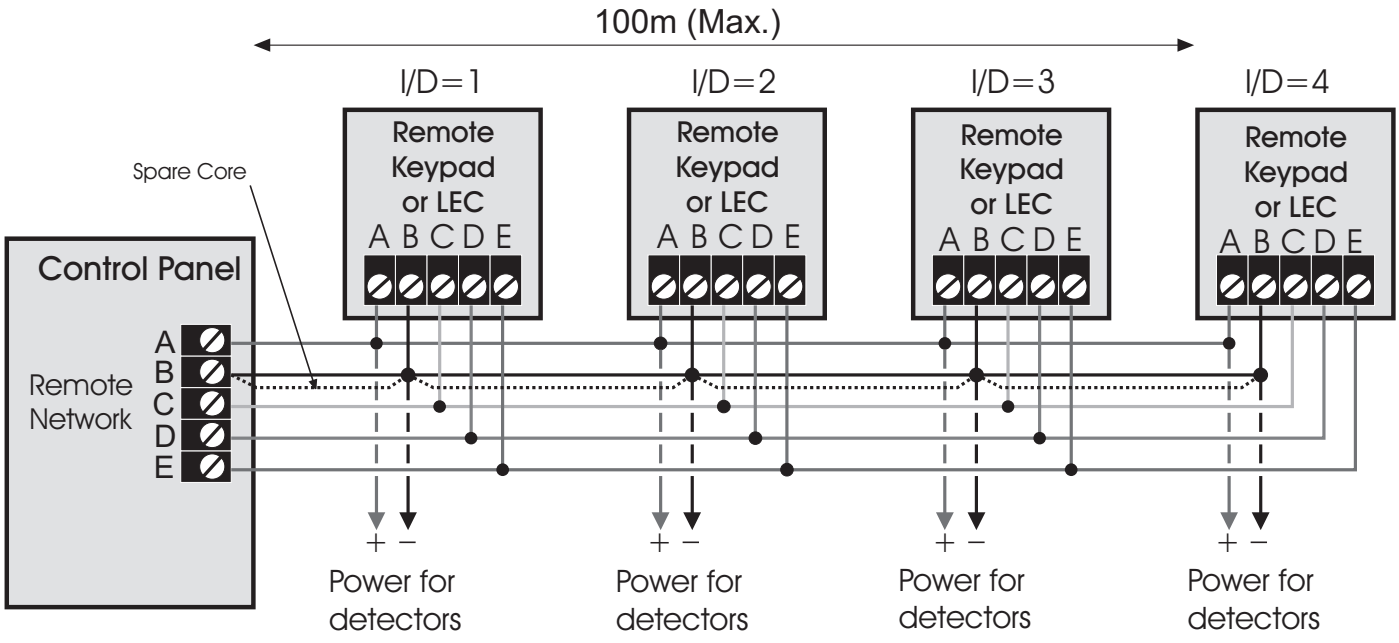


Figure 2. TS690 & TS690ID Remote Network Wiring

ID Loop Wiring (TS690ID Only)

Each ID device is connected across a two-wire ID loop. Apart from observing the correct polarity, any wiring configuration can be used, as shown in the figure below.

Cabling Requirements

The ID loop can be wired using standard 4 core cable, this allows 2 cores to be used for the ID devices and 2 cores for supplying 12V power for PIR's etc.

The number of devices permitted per cable run is governed by the resistance of the cable used. Standard 4 core alarm cable (7/0.2mm) has a resistance of approximately 8 Ohms per 100 metres and as a guide the maximum number of devices that can be connected at the END of a single cable run is as follows:

No of Biscuits at end of cable	Max Cable Distance (m)	Max. cable loss resistance, ends shorted at panel
30	40m	6 Ohms
15	68m	11 Ohms
7	107m	17 Ohms
3	150m	24 Ohms

If a different type of cable is used, the distances should be recalculated. e.g., if 7/0.4mm cable is used, a single run of 80 metres would support 30 devices on the end as the resistance of the cable is halved.

When installing the ID loop wiring It is usually more practical to run several cables from the control panel to the different areas of protection. This effectively reduces any distance problems and makes fault finding much easier.

To reduce the likelihood of induced interference and wherever possible, cables should not be positioned along side mains power, telephone or other data transmission cables, or run within the same ducting or trunking as any other cables.

The wiring for remote keypads and internal sounders (loudspeakers) should not be connected in the same multi-core as the ID loop.

☞ *Included in the spares pack is a 47nF capacitor. Although not necessary for correct operation of the system, it will improve the system noise immunity if connected across the ID loop at one of the devices furthest from the control panel.*

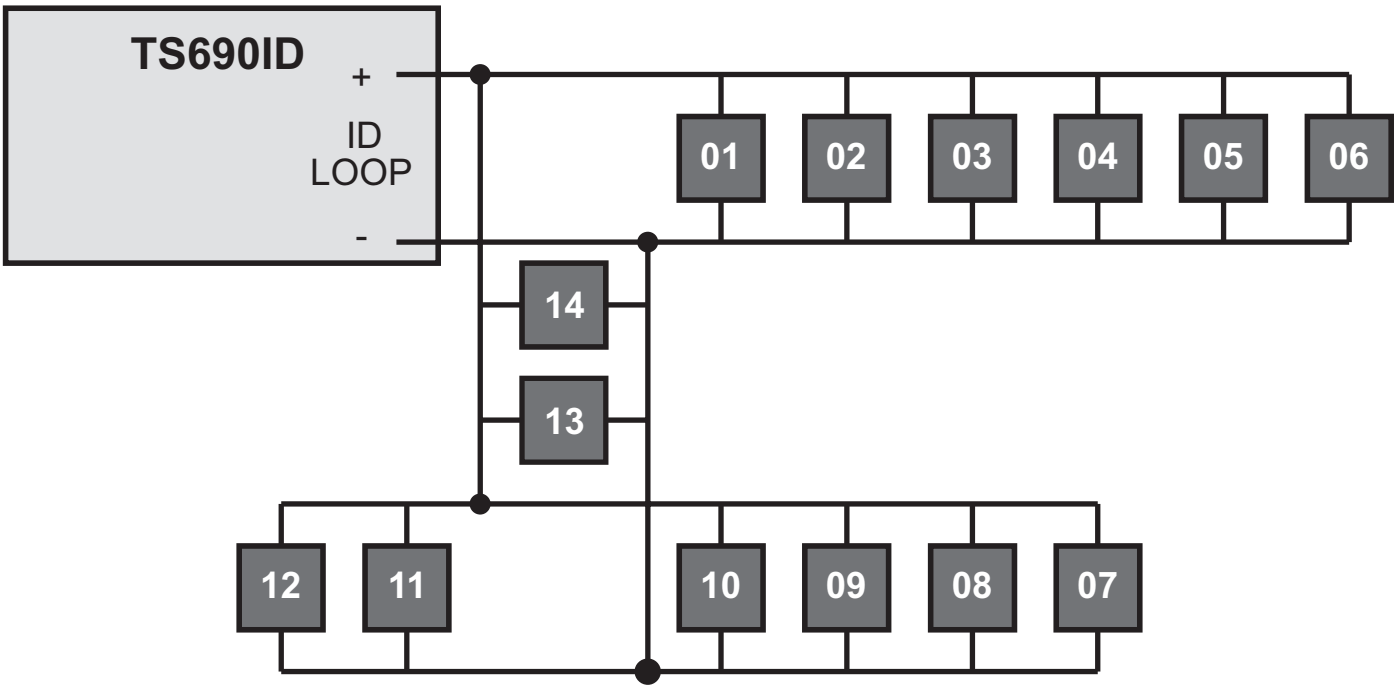


Figure 3. ID Detector Loop Wiring

Control Panel Installation

Proceed as follows:

1. Open the control panel by removing two screws from the front cover. Remove the cover and disconnect the earth bonding cable from the spade connection near the transformer.
2. Note the position of the cable entries as follows:
   - **(a)** Ten 20mm cable entries for detection, alarm and remote keypad cables.
   - **(b)** A 20mm cable entry for mains (240V) below the mains input terminal block.

   ☞ *The mains cable must enter the control panel through its own cable entry and must not be mixed with other cables.*
3. Hold the control panel back box in the required position and mark the centre of the middle fixing position. Remove the back box, drill and plug the hole.
4. Screw a No 10 screw into the plugged hole. Reposition the back box and mark the remaining two securing holes. Remove the back box, drill and plug the holes.
5. Reposition the back box and pass all cables into the base via the appropriate cable entries, remembering to fit grommets where necessary.
6. Secure the back box using not less than 30mm x No 10 screws through the three securing holes.
7. If required install and connect the following:
   - **(a)** Stand alone digicom or RedCARE STU.
   - **(b)** Printer type DATAC or serial RS232 via a printer adapter (MPA/DCI).
   - **(c)** Relay module type RM.3A.

   ☞ *When replacing the cover, always ensure that the earth bonding lead is connected to the spade connection on the transformer.*

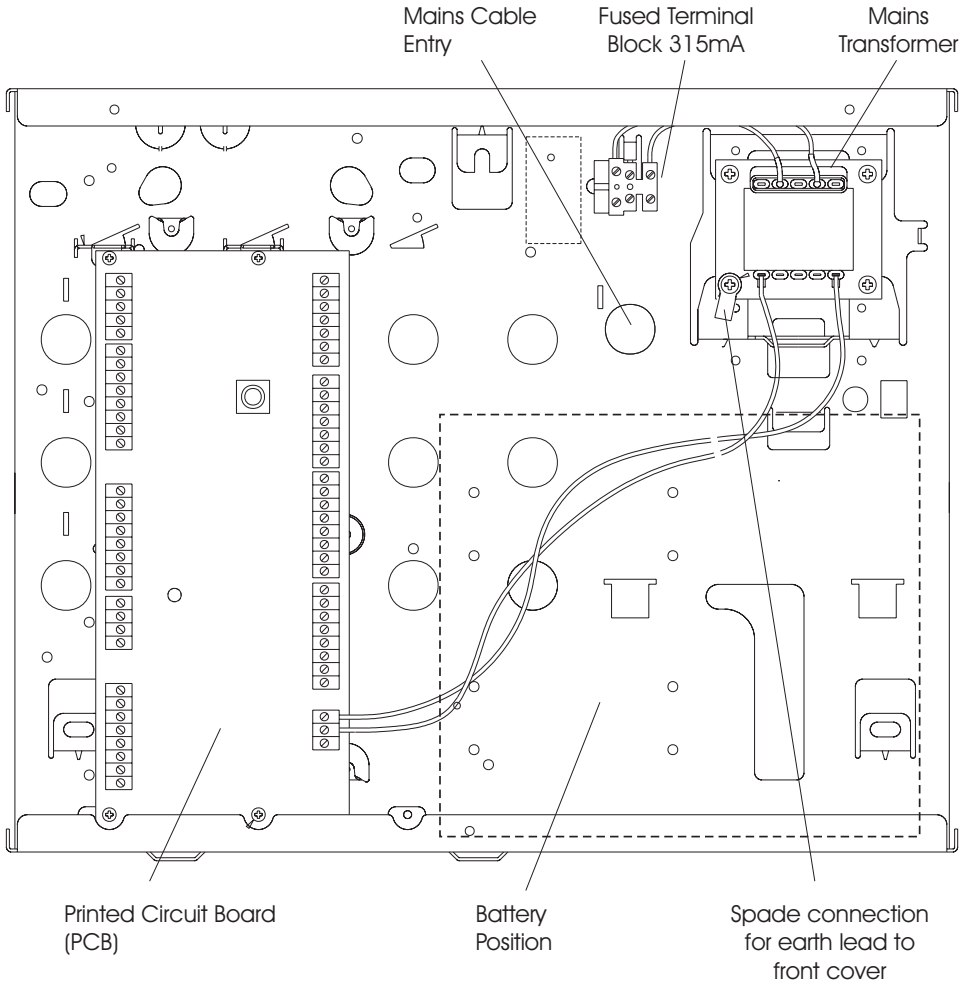


Figure 4. TS690 & TS690ID Control Panel Layout

Control Panel PCB Layout

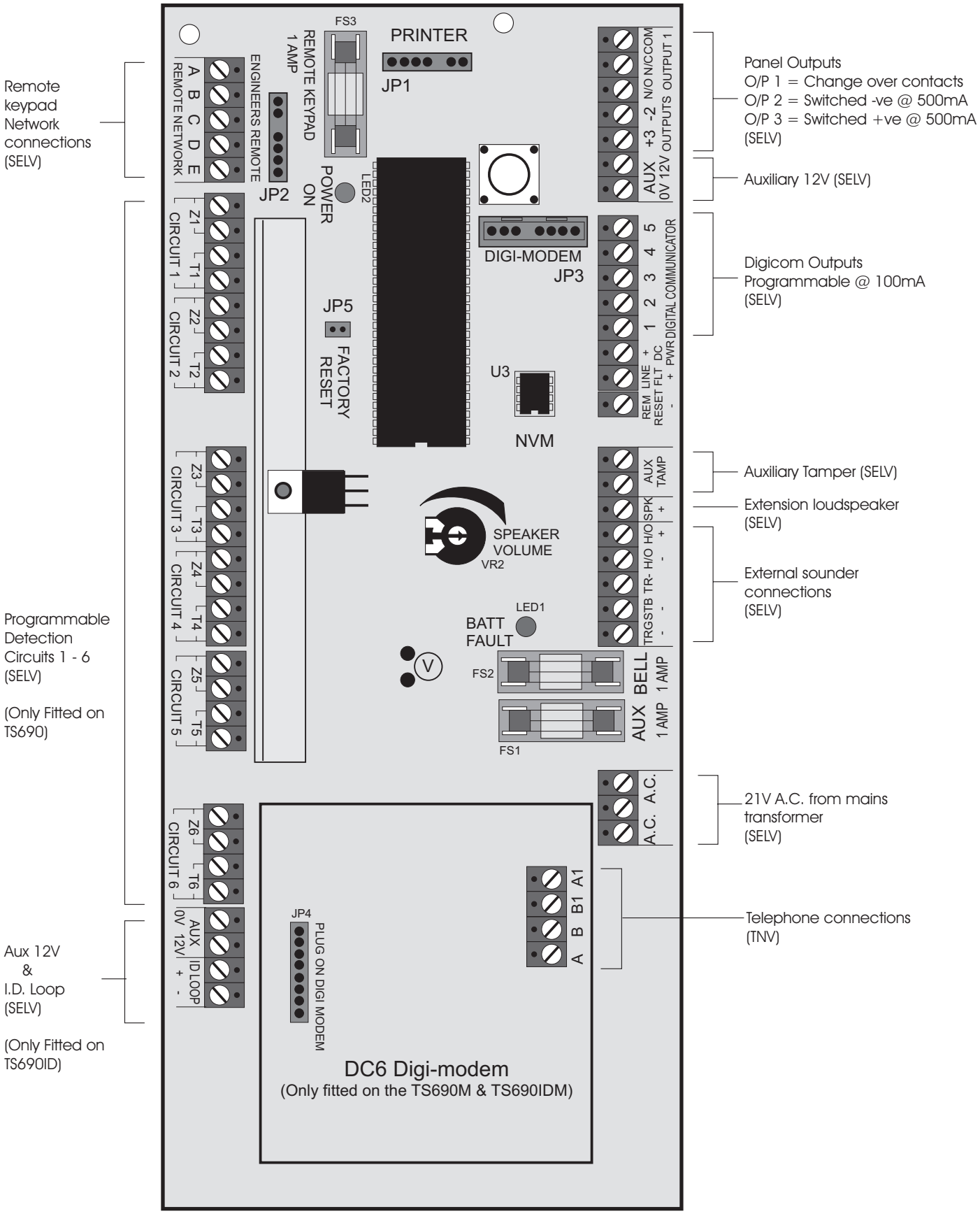


Figure 5. TS690 & TS690ID Main PCB

Connection Terminals & Indicators

Connection terminals on the TS690 / TS690ID are described as ether "Safety Extra-Low Voltage" (SELV) circuits or "Telecommunication Network Voltages" (TNV) circuits. Figure 5 shows the two types of circuits.

JP1 PRINTER
This 6-pin plug is used for connecting to either a CPA6.P printer or a standard RS232 printer via the MPA/DCI printer adapter.

JP2 ENGINEERS REMOTE
An Engineers remote keypad may be temporarily connected to this 6-pin plug to allow programming and testing to be carried out at the control panel.

JP3 DIGI-MODEM
The DCI lead connects to this plug when using the Lineload software via a P.C. for direct communication with the control panel. A DC54, DC58 or DC58M can also be connected to this plug if the DC6 is NOT being used.

JP4 PLUG ON DIGI MODEM (DC6)
The plug-on digi-modem plugs directly onto these pins. The DC6 is a 8 channel digital communicator and V21 modem. The DC6 is required when using the downloading feature. The TS690M and TS690IDM are supplied with the DC6 already pre-fitted.

JP5 FACTORY RESET
If these pins are shorted during power-up all system parameters are reset to their factory default settings. If the engineer's passcode is lost or forgotten it can be reset to 1234 without losing any other program data. The procedure for resetting the engineer's passcode is described on page 51.

VR2 SPEAKER VOLUME
When an extension loudspeaker is connected to the control panel terminals the volume of the advisory tones may be adjusted using this control.

☞ *Alarm tones are always at full volume.*

U3 NVM
A removable nonvolatile memory (NVM) device that stores all system program parameters and the 700 log events.

LED1 BATT FAULT
If the system battery is incorrectly connected to the control panel or the battery voltage is below 4 Volts, then the "BATT FAULT" LED will light. The fault LED will only extinguish when the battery has been correctly connected or replaced, as appropriate.

LED2 POWER ON
This LED indicates that the system power (mains or battery) is healthy.

V SYSTEM CURRENT CONSUMPTION
The system current consumption may be calculated by measuring the Voltage across this test point on the main PCB. Using a Voltmeter set to a low Voltage range measure the Voltage across the test point and multiply the reading by 10 to give the Total system current consumption i.e., a reading of 70mV = 700mA.

FS1 BELL
This 1 Amp fuse protects the supply to the external sounder/bell. The fuse is in-line with the [H/O+] terminal connection.

FS2 AUXILIARY
This 1 Amp fuse protects the auxiliary supply output. The fuse is in-line with the [AUX. 12V] terminal connections.

FS3 REMOTE KEYPAD
This 1 Amp fuse protects the supply to the remote network. The fuse is in-line with the [A] terminal connection.

ID LOOP (TS690ID Only)
These two terminals are used for connecting ID devices.

☞ *The ID Loop has electronic short circuit protection, therefore no fuse is fitted to protect it. In the event that the ID Loop is shorted the system will indicate a short circuit condition and will revert to normal when the short is removed.*

Mains Connection

The mains supply is connected to a 3 way "Euro Type" fused terminal block, which is fitted with a 315mA fuse. All electrical connections should be carried out by a qualified electrician and must comply with the current IEE regulations.

☞ *To comply with European regulations the supply should be fed from a readily accessible disconnect device, e.g. un-switched fused spur fitted.*

☞ *When making mains connections it should be ensured that if the cable slips in such a way as to place a strain on the conductors, the protective earthing conductor will be the last to take the strain.*

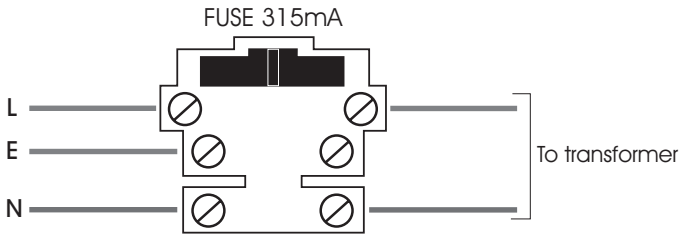


Figure 6. Mains Supply Connections

Battery Connection

A 7Ah battery must be fitted to the system to allow it to function during a mains fail condition. The TS690 & TS690ID is equipped with a "Battery Protection" circuit so that if a battery is accidentally reverse connected or its voltage is below 4V, the "BATT FAULT" LED lights. To clear the fault simply reconnect or replace the battery as appropriate.

Remote Keypads

Four types of remote keypads can be used on the system, however, only the NETLCD remote keypad can be used for programming text information. Any combination of remote keypad can be used on the same system, if desired.

NETLCD Remote Keypad

The NETLCD remote keypad has a 32 character backlit Liquid Crystal Display (LCD)

NETSTAR Remote Keypad

The NETSTAR remote keypad has a 8 character backlit Starburst Liquid Crystal Display (LCD).

NETLED Remote Keypad

The NETLED remote keypad has a 4 character LED display.

NETARM Remote Arming Station

The NETARM remote arming station does not have a display, therefore it is designed to only be used where setting, part setting and unsetting of the system is required.

PCB Layouts & Connections

1 **Detection Circuits.**
Each remote keypad has two programmable detection circuits.

2 **Loudspeaker Volume.**
For adjusting the volume of a speaker wired to the remote keypad (NETLCD only).

3 **LED Mimic.**
If this jumper link is set to the "enabled" position, the red (⚠) LED on the keypad will be "ON" when the keypad output is active.

4 **Remote I/D.**
Used to select the remote keypads address. (ENG = Engineer).

5 **Ward Sounder Control.**
This facility is not available for TS690 and TS690ID systems.

6 **Keys 1 and 3 PA Enable**
Leave this link intact to enable PA alarm on keys 1 and 3. When a user presses 1 and 3 together the control panel sounds a PA alarm. Cutting the link ensures that when a user presses keys 1 and 3, the control panel reports an alarm from zone A on the keypad. The alarm type will depend on how the zone type is programmed in the control panel.

7 **Loudspeaker Output.**
This terminal can be connected to a single 16 Ohm Loudspeaker (NETLCD only).

8 Network Connections & O/P.
Terminals A to E are used to connect the remote keypad to the control panel network. The O/P terminal is the programmable output.

9 Tamper Switch.
Remote Keypad case tamper

10 Proximity Reader Option.
Pins for plugging on a TSNETPROX proximity reader module.

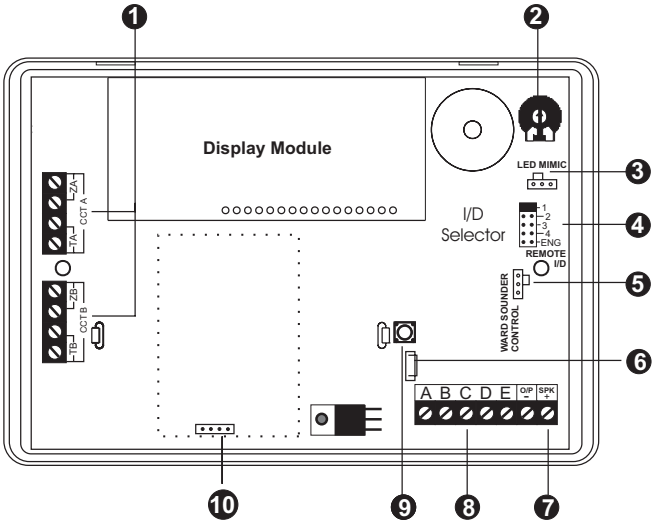


Figure 7.NETLCD, NETLED & NETARM PCB Layout

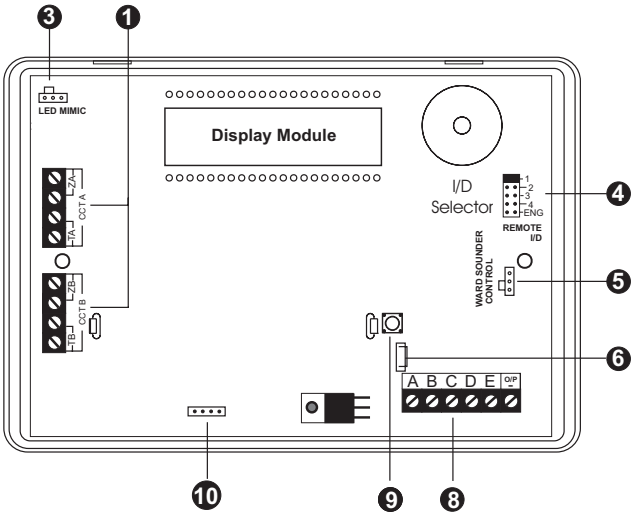


Figure 8.NETSTAR PCB Layout

Installation Procedure.

☞ ***Always ensure that all power (mains and battery) is removed before making any connections to the remote keypad.***

1. Separate the cover and base by using a screwdriver to push 2 of the clips (top or bottom) inward from the base indents, then lift the cover assembly, noting that the PCB is fixed to the under side of the cover.
2. Hold the base in position (keyhole to the top) and mark the three securing holes, drill and plug the wall as required. Pass all the cables into the base via the cable entry points as appropriate and secure the base to the wall.
3. Connect "Remote Network" and detection circuit cables to the appropriate terminals.
4. Set the I/D selector jumper link to the required position:

TS690			
I/D Selector	Circuit A	Circuit B	Panel Output
1	07	08	5
2	09	10	6
3	11	12	7
4	13	14	8
ENG/NULL	N/A	N/A	N/A

TS690ID			
I/D Selector	Circuit A	Circuit B	Panel Output
1	31	32	5
2	33	34	6
3	35	36	7
4	37	38	8
ENG/NULL	N/A	N/A	N/A

- No two remote keypads or LECs should have the same I/D.
- If the I/D is set to "ENG" the remote keypad will function as an Engineer's keypad allowing it to be plugged onto the control panel so that system programming and testing can be carried out, *see Engineer's Keypad.*

5. Set the "ENT KEY DISABLE" jumper link to the required position.
6. Set the "WARD SOUNDER CONTROL" jumper link to the required position.
7. Finally clip the remote keypad cover onto the base being careful not to trap any cables or to obstruct the tamper switch.

Keypad Loudspeaker Connections

A single 16 Ohm loudspeaker may be wired to the keypad if required. This loudspeaker will follow the existing keypad sounder and its volume level can

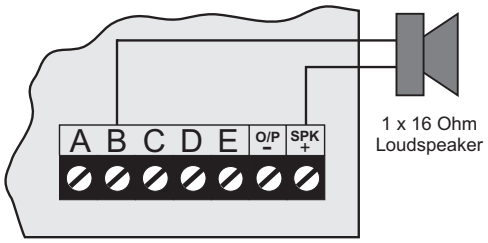


Figure 9. NETLCD Speaker Connections

be adjusted by the speaker volume pot (VR1).

☞ *The speaker output and volume pot are only available on the NETLCD keypad.*

Engineer's Keypad

Normally all system programming will be carried out from one of the installed remote keypads, however sometimes it may be more convenient to program the system at the control panel. This can be achieved by using an "Engineers Keypad" which is temporarily plugged on to the control panel (JP2). To convert a standard remote keypad to an "Engineers Keypad" an Engineer's interface lead is required which can be obtained from your supplier (P/No. NETEKI).

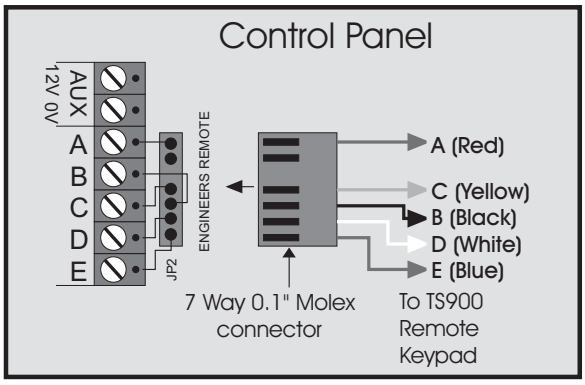


Figure 10. Engineer's Keypad Connection

TS700 LEC Installation

The TS700 LEC (Local Expansion Card) is connected to the "Remote Network" and provides two additional programmable detection circuits and a programmable output. The "Remote Network" may have up to three LECs connected, as the system will always require at least one remote keypad.

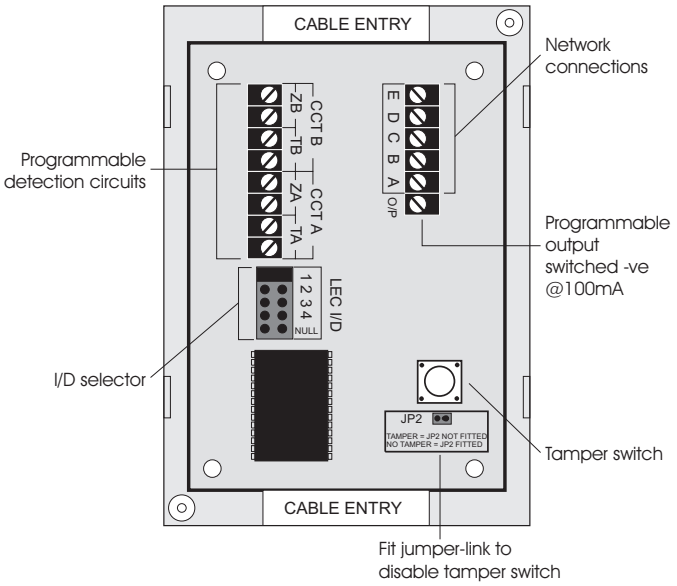


Figure 11. TS700.LEC Layout

☞ *Always ensure that all power (mains and battery) is removed before making any connections to the LEC..*

1. Remove the cover from the base and carefully remove the PCB.
2. If the LEC is being fitted inside the control panel you may remove the LEC PCB from its base and secure it to base of the control panel using self adhesive feet. If required, the tamper switch may also be disabled by fitting the jumper link across JP2, *see Figure 10.*
3. If the LEC is being fitted outside the control panel, hold the base in position and mark the two securing holes. Drill and plug the wall, then pass all cables into the base via the cable entry points. Secure the base to the wall using the appropriate fixing screws.

4. Connect "Remote Network" cables and detection circuit cables to the appropriate terminals, *see Figure 10*
5. Set the I/D selector jumper link to the required position:

TS690			
I/D Selector	Circuit A	Circuit B	Panel Output
1	07	08	5
2	09	10	6
3	11	12	7
4	13	14	8
ENG/NULL	N/A	N/A	N/A

TS690ID			
I/D Selector	Circuit A	Circuit B	Panel Output
1	31	32	5
2	33	34	6
3	35	36	7
4	36	38	8
ENG/NULL	N/A	N/A	N/A

- No two LECs or remote keypads should have the same I/D.
- DO NOT set the I/D selector to the "NULL" position.

6. Finally clip the LEC cover onto the base being careful not to trap any cables or to obstruct the tamper switch.

Wiring Detection Circuits

All detection circuits may be wired as "End Of Line" (EOL) or "Double Pole" (DP). Both methods can be used on the same equipment.

Double Pole

The DP method requires the following:

- The detector alarm and tamper contacts are connected to the zone and tamper terminals respectively.
- The combined alarm and tamper loop resistance must be less than 100 Ohms.
- The maximum number of detection devices allowed in a circuit is ten.
- Normally open devices such as pressure pads and exit terminator buttons are connected between the zone and tamper terminals.
- If the detection circuit is not used links can be fitted across the zone and tamper loops or programmed as Not Used.

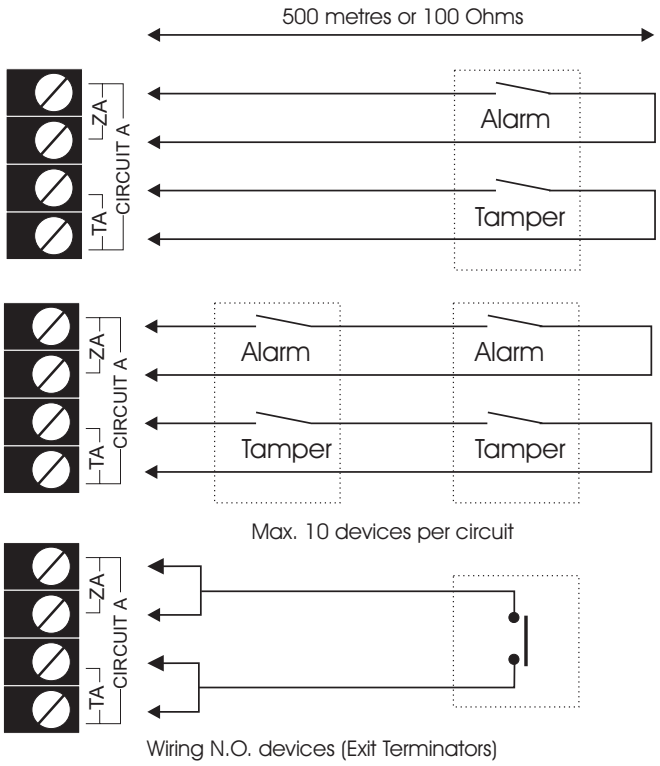


Figure 12. Double Pole Wiring

End Of Line

The EOL method requires the following:

- The detector alarm contacts must have a 4K7 shunt resistor fitted.
- A 2K2 End of Line (EOL) resistor must be fitted at the point in the circuit furthest from the control panel.
- Loop resistance with the EOL resistor shorted must be less than 100 Ohms.
- The maximum number of detection devices allowed in a circuit is ten.
- Normally open devices such as pressure pads and exit terminator buttons are connected across outer terminals
- If the detection circuit is not used links can be fitted across the zone and tamper loops or programmed as Not Used.

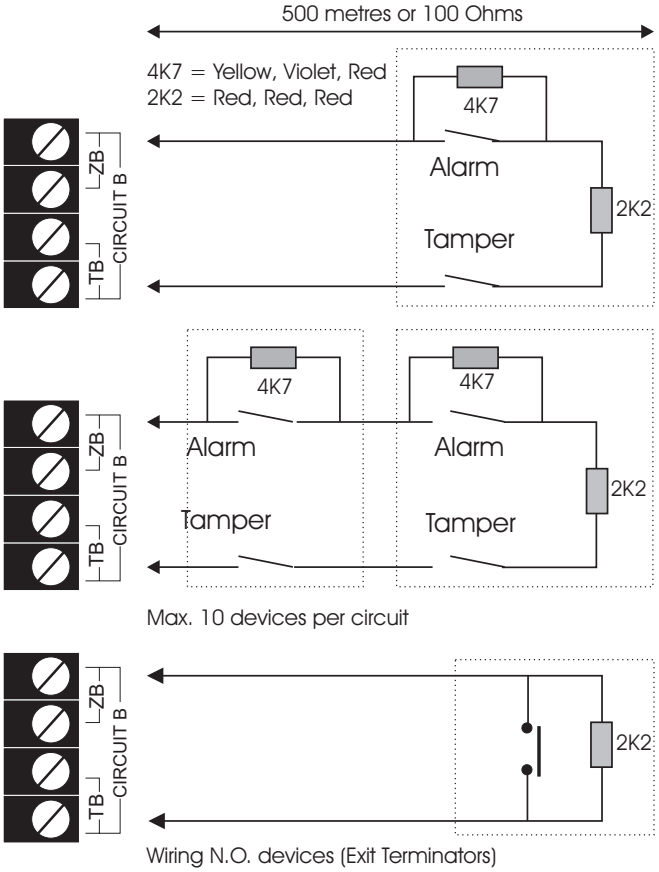


Figure 13. End of Line Wiring

Wiring ID Biscuits

Each ID biscuit is identified by its own number, 01 to 30 and contains its own internal sensor which is continuously monitored by the two-wire ID Loop. The figure below shows the basic connections to the biscuit using a tamper and alarm contacts.

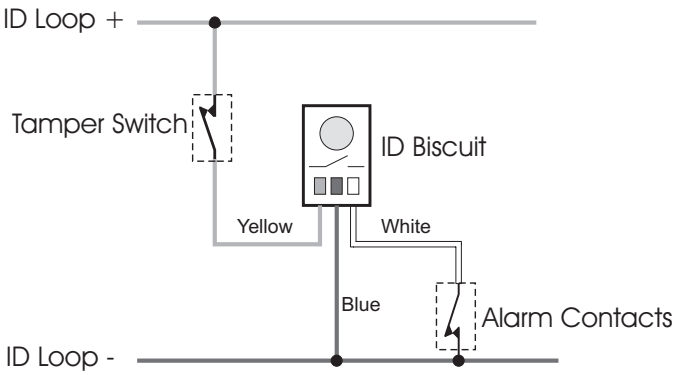


Figure 14. ID Wiring

When the tamper switch is opened, the ID biscuit becomes off line and a tamper alarm is generated by the control panel. If the alarm contacts are opened the biscuit's internal sensor changes state and the control panel will see this as an active condition and will respond as appropriate.

Biscuit Connections

The figure below shows an ID wired biscuit the connection are as follows:

Yellow Wire	ID Loop +
Blue Wire	ID Loop -
White Wire	Alarm switch wire

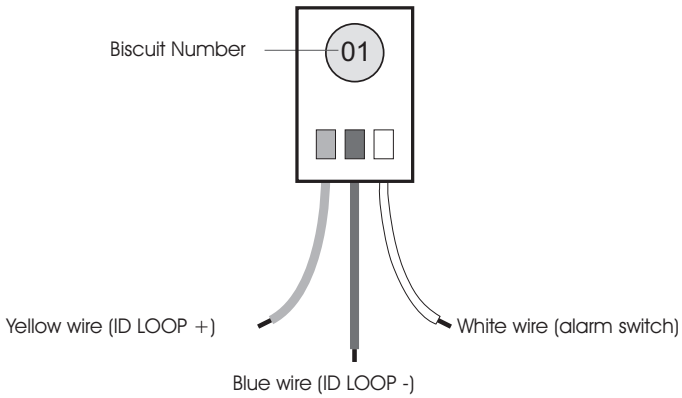


Figure 15. A Wired ID Biscuit

Wiring A Biscuit to a PIR

The figure below shows typical wiring configuration for a standard PIR.

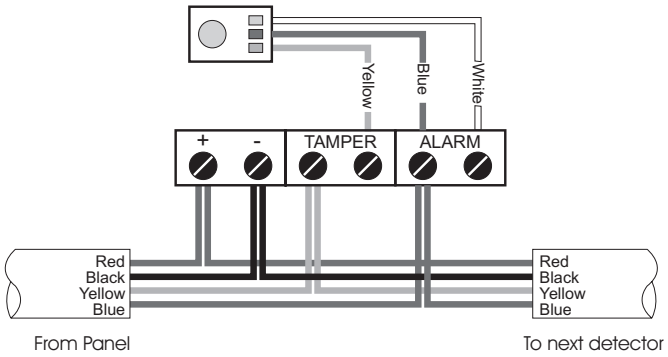


Figure 16. Wiring a Biscuit to a PIR

Wiring a Biscuit to a Panic Button

The figure below shows typical wiring configuration for a standard panic button.

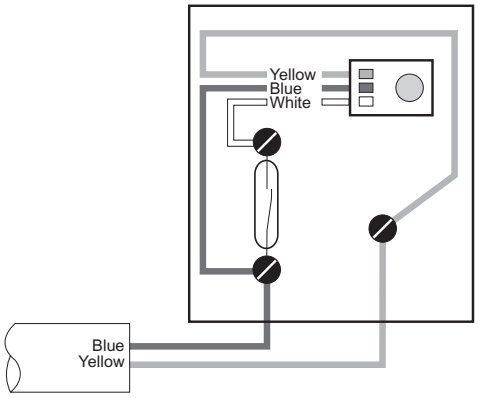


Figure 17. Wiring a Biscuit to a Panic Button

Wiring a Biscuit to a Smoke Detector

The figure below shows typical wiring configuration for a standard 12V smoke detector.

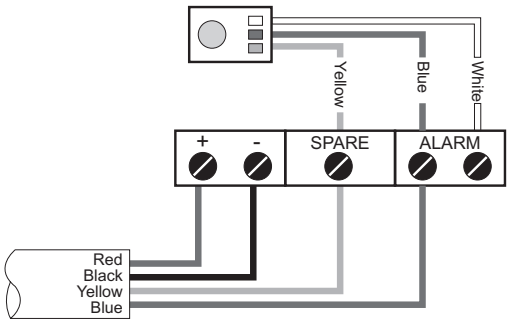


Figure 18. Wiring a Biscuit to a Smoke Detector

External Sounder Connections

The following terminals have been provided to allow connections to an external sounder:

H/O - This is used to provide a permanent -ve hold off to external sounders, strobes etc.

H/O + This is used to provide a permanent +ve hold off to external sounders, strobes etc. It is protected by a 1 Amp fuse (Bell 12V).

TR - This is the negative tamper return connection from the siren or bell.

STB - This is the strobe output which will switch to 0V on alarm and is rated at 500mA. Connect the other side of the strobe to the H/O +.

TRG - This is the bell trigger output which can be programmed for SAB or SCB operation, as follows:

SAB: TRG - will switch to 0V on alarm and will provide a maximum of 500mA.

SCB: TRG - will provide a negative hold off (500mA), which is removed on alarm.

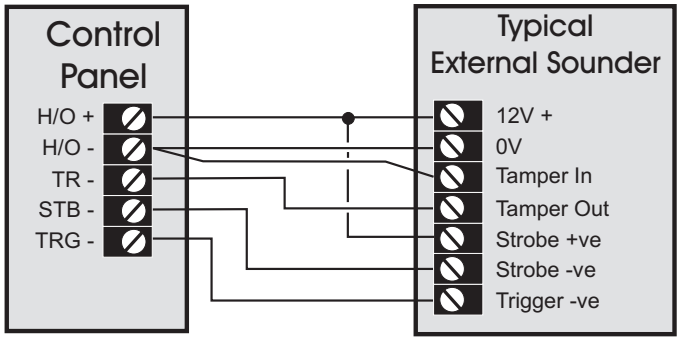


Figure 19. External Sounder Connections

Auxiliary Tamper

These two terminals provide tamper protection to auxiliary devices such as power supplies, extension loudspeakers etc. If they are not used they must be linked out.

Extension Loudspeakers

Up to two extension loudspeakers can be connected across the [SPK+] and [H/O-] terminals on the control panel PCB. The volume for the loudspeaker is controlled by VR1 "Speaker Volume".

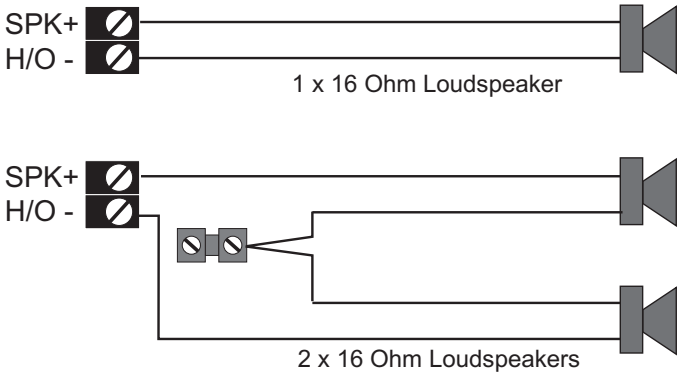


Figure 20. Loudspeaker Connections

Digicom/RedCARE Installation

A stand alone digital communicator, RedCARE STU or Paknet interface card can be connected to the control panel using the following connections:

Digicom Outputs 1 to 5

These are the programmable digicom output connections. They are normally at +12V and switch to 0V when active. The outputs can be inverted so that they switch from 0V to +12V when active, *see System Configuration on page 34.* Each output will source 5mA in the +12V condition and sink 100mA in the 0V condition.

+DC POWER

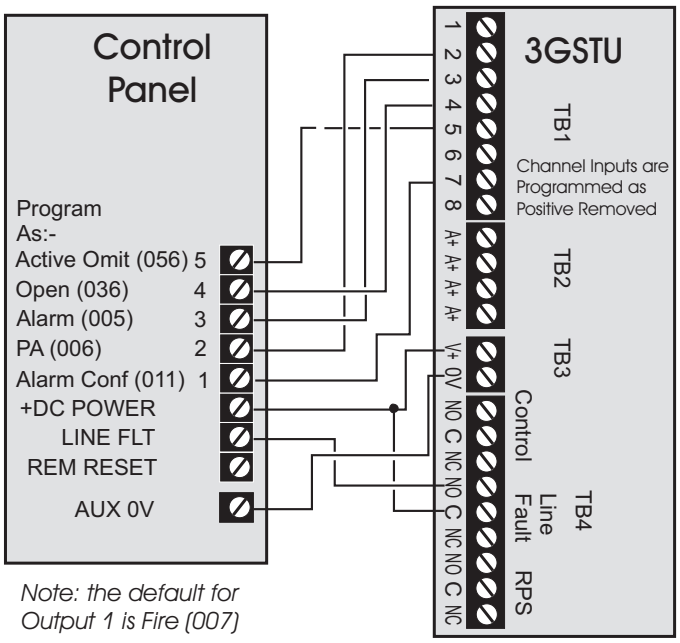
This provides the +12V power to the digicom. This output is un-fused and therefore should only be used if the digicom is fitted inside the control panel. The 0V supply for the digicom/STU can be picked up from any of the auxiliary 0V terminals.

LINE FLT

When this input is switched to +12V, a "Line Fault" condition is generated. A "Line Fault" condition In the unset mode will cause a "Chime" type tone to be generated every minute, which can be silenced by entering any valid passcode. A "Line Fault" condition In the set mode will cancel the "Bell Delay".

REM RESET

If the system is programmed for "Engineer Reset", then after a full alarm the system will require resetting, normally this is done by the engineer or coded remote reset. Applying a -ve to this input terminal will cause the system to reset after a full alarm. This input could be connected to the "Control" output on a RedCARE STU so that the Alarm Receiving Centre can poll the STU and thus reset the panel.



Note: the default for Output 1 is Fire (007)

Figure 21. 3GSTU RedCARE Connections

DC6 Digi-Modem Installation

A plug-on digi-modem DC6 can be fitted inside the control panel to allow remote interrogation and programming via a personal computer (PC). It will also function as a standard digital communicator. Before attempting to install the DC6, the installer must be aware of the following:

Regulatory Requirements

The DC6 digi-modem must be installed by an electrically competent person.

Application

The DC6 digital communicator/modem is suitable for connection to the following types of telephone line:

- Direct exchange lines (PSTN) supporting DTMF (Tone dialling) or Loop Disconnect (Pulse Dialling).
- PABX exchanges (with or without secondary proceed indication).

☞ *The DC6 is only approved for use with compatible PABXs. Correct operation in all circumstances is not guaranteed.*

☞ *The DC6 is fully compatible with BT Network services.*

☞ *Only control panels fitted with V2.0 or later software, or DC6's fitted with V1.17 or later software are compatible with Call Minder and Call Divert services. For full details on compatibility refer to Technical Bulletin 002/04/98 or contact Technical Support.*

Approval

The DC6 digital communicator/modem is not suitable for connection as an extension to a pay phone or 1+1 carrier systems. The DC6 digital communicator/modem is approved for the following usage:

- Automatic call initialisation
- Operation in absence of proceed indication
- Multiple repeat attempts
- Modem

Usage other than the approved usage or failure to comply with the installation and programming instructions may invalidate any approval given to the apparatus.

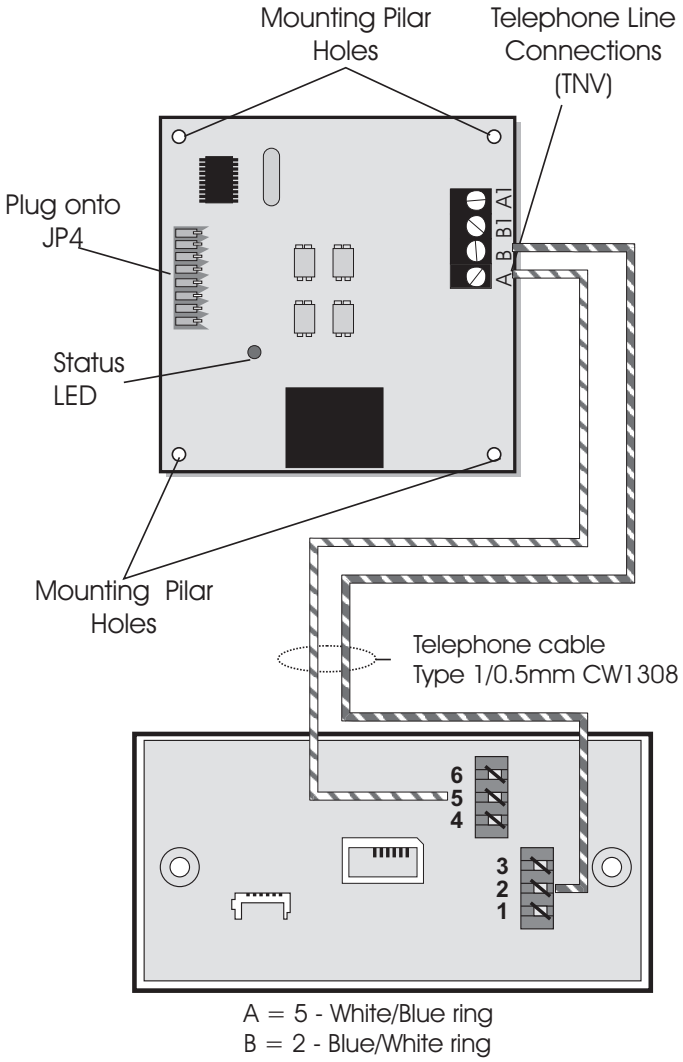
Connections

Connection terminals on the DC6 are described as "Telecommunications Network Voltage" circuits (TNV).

☞ *It is important that the installer ensures that TNV connections are only connected to the PSTN and SELV circuits are only connected to other circuits designated as SELV circuits.*

☞ *Please ensure that cabling to the telephone line connections (TNV) are routed well away from the detection circuitry (SELV) and the cabling to the detection circuitry (SELV) are routed well away from the telephone circuitry (TNV).*

☞ *Interconnection circuits should be such that the equipment continues to comply with the requirements of 4.2 of EN 41003 for TNV circuits and 2.3 of EN 60950 for SELV circuits, after making connections between circuits.*



A = 5 - White/Blue ring
B = 2 - Blue/White ring

NOTE
The A1 and B1 telephone connections are not used on the UK version of the DC6.

Figure 22. DC6 Connections

Installation

☞ *For your safety, installation of the DC6 MUST be carried out in the sequence shown below:*

1. Ensure that all power is removed from the system i.e. mains supply and standby battery.
2. Remove the DC6 from its packaging and fit the plastic mounting pillars into the 4 holes provided.
3. Align the DC6 with the connector JP4 on the main PCB and push firmly into place.
4. Connections to the telephone network must be made via a NET master socket (Line Box).
5. Using the cable type 1/0.5mm CW1308, strip back 5mm of the required cores and feed into the control panel though the appropriate cable entry. Keep all telephone cables at least 5mm away from other alarm cables.
6. Connect the two telephone cables to the terminal blocks A and B, see figure 22.
7. Remove the two screws from the BT master jack socket and remove the bottom section from the master jack.
8. Connect the cable from A and B terminals on the DC6 to the BT master jack terminals, see figure 22.
9. A special insertion tool will be required to connect the cable to the master jack, this is available from RS Components (Part No. 470-487).
10. Replace the bottom section of the master jack socket and replace the two screws.
11. Re-apply power to the control panel.
12. The DC6 must now be programmed, refer to "Modem Options" on page 47.
13. Each channel can be tested using the Digicom Test routine, *see page 49.*
14. Finally replace and secure the cover on the control panel.

DC54 & DC58M Installation

A plug-on digital communicator DC54, DC58 or DC58M may be fitted inside the control panel to allow alarm status information to be transferred to a dedicated central station. The unit should be fitted in accordance with the installation instructions supplied with it and connected to the control panel plug DIGI-MODEM (JP3) using the lead provided with the unit. The NVM within the will need to be programmed using an engineer's keypad or PP5.

☞ *The control panel can only support one plug-on Digi-Modem either the DC6 or DC54/58M. Do not connect both types to same control panel.*

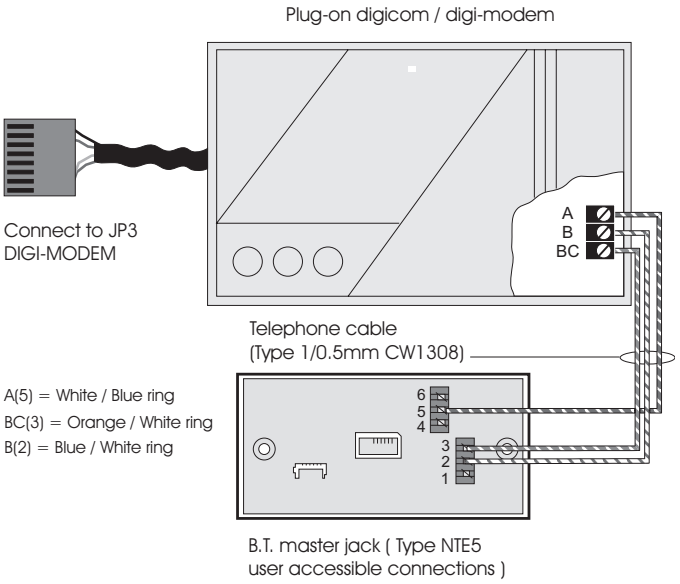


Figure 23. DC54/DC58 Connections

Connecting a Printer

The TS690 and TS690ID supports two type of printers, the CPA6 printer (no longer available) and any standard RS232 printer. When using an RS232 printer a DCI/MPA printer adaptor will be required. Menvier Security supply a DATAC printer kit which consists of a portable RS232 printer, charger unit and DCI adapter.

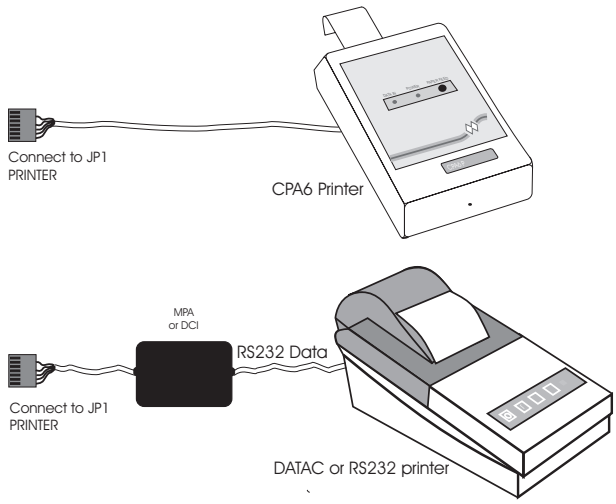


Figure 24. Printer Connections

Using the DATAC / RS232 Printer

1. Plug the DCI/MPA on to the PRINTER plug (JP1) on the main control panel PCB.
2. Plug the other end of the DCI/MPA into the DATAC or RS232 printer.
3. In order for the printer to work correctly ensure that the printer is set to the following:

   Baud rate = 4800
   Parity = None
   Start bits = 1
   Stop bits = 2
   Data bits = 8
   DTR = Normal

4. When setup correctly the system program details and event log can be printed.
5. When finished unplug the MPA/DCI. If the printer is left connected events will be printed as and when they occur.

Using the CPA6 Printer

6. Plug the CPA6 printer directly on to the PRINTER plug (JP1) on the main control panel PCB.
7. The printer will printout a header, when finished the system program details and event log can be printed.
8. When finished unplug the printer. If the printer is left connected events will be printed as and when they occur.

Programmable Outputs

The TS690 and TS690ID has many programmable outputs which can be used to drive relays, LED's etc. Each output can be programmed for a different function, see "Programmable Output Types" on page 26.

Control Panel Outputs

The control panel has three programmable outputs:

[1] Set of voltage free changeover contacts rated at 1 Amp.

[-2] Switched -ve output rated at 500mA.

[+3] Switched +ve output rated at 500mA.

Remote Keypads & TS700.LECs

Each remote keypad and TS700 LEC has one programmable output:

[O/P] Switched -ve output rated at 100mA.

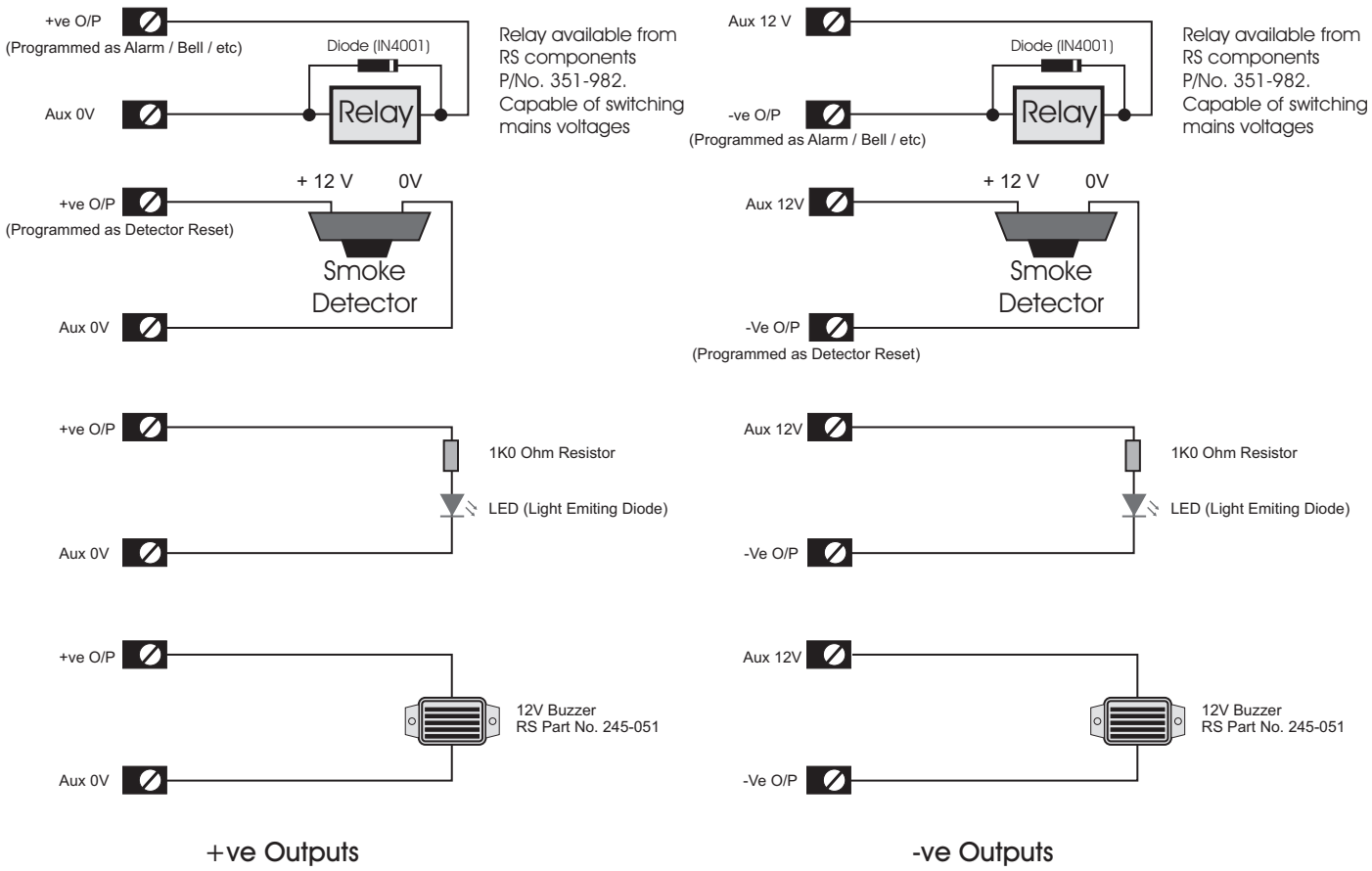


Figure 25. Output Examples

Pre Power-Up Checks

Once the system is installed, but prior to powering-up, give the system one final check to ensure that:

1. The wiring conforms to the requirements detailed in this manual and that all interconnections are correct (A to A, B to B etc.).
2. All system cables are kept clear of mains supply cables, telephone cables and R.F. cables. It is recommended that cable ties be used to keep cables separated.
3. Verify that maximum cable lengths and resistance's are not exceeded.
4. Mains power supply cables to the system are connected to an un-switched fused spur.
5. Grommets are used where cables enter metal housings to ensure that insulation is not compromised.

ID Cable Checks (TS690ID Only)

Before powering-up the control panel it is recommended that the following tests are performed on the ID Loop:

1. Disconnect the two cores of the ID loop from the control panel [ID LOOP +] and [ID LOOP -] terminals.
2. Use a DVM to measure the resistance between the two cores. If the resistance is below 1k Ohms then there is a short circuit or other wiring defect on the ID loop. This must be corrected before going any further. The exact resistance you measure will depend on the number of ID devices connected to the ID loop and the type of DVM that you have. Typical resistance readings are as follows:

1 device	90K Ohms
10 devices	8.5K Ohms
20 devices	4.5K Ohms
30 devices	2K Ohms

3. With the ID loop still disconnected from the control panel, use a DVM to measure the resistance between the following cores and terminals:

   (a) ID + core and 0V terminal.

   (b) ID + core and +12V terminal.

   (c) ID + core and Mains earth terminal.

   (d) ID - core and 0V terminal.

   (e) ID - core and +12V terminal.

   (f) ID - core and Mains earth terminal.

   In all cases the DVM should indicate an open circuit, any other reading could indicate a short circuit or wiring fault and must be investigated.

4. At the control panel, twist the two cores of the ID loop together so that the ID loop is shorted.

5. At each end of the ID loop (points A, B and C in our example shown in the figure below) measure the resistance between the two cores of the ID loop (normally theses are the yellow and blue cores). See the table of page 8. A reading greater than 2K Ohms is usually caused by an open circuit.

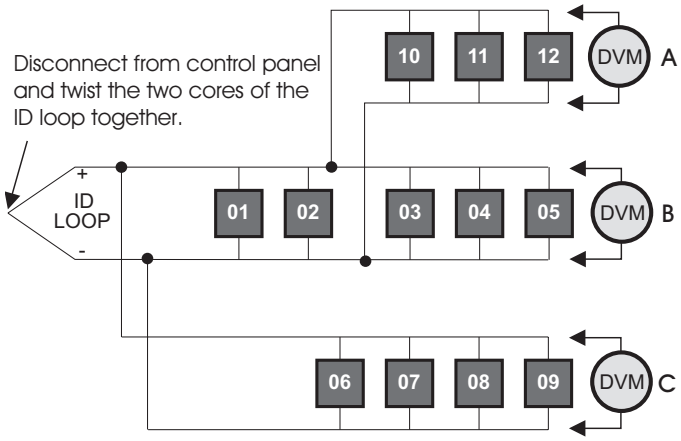


Figure 26. ID Loop Wiring Tests

6. Re-connect the ID Loop to the control panel. When the system is powered up use the "SLOW SCAN" feature to check voltage levels at each device, see page 37.

Initial Power-Up

To power the system for the first time:

1. Place a small screwdriver blade between the pins on the control panel PCB, marked "FACTORY RESET". This will ensure the factory default parameters are set, *see page 24.*

2. Switch on the 240V mains supply and remove the screwdriver blade.

3. Check that the power LED on the control panel PCB is illuminated.

4. Check that the LED remote keypads display "LE" (Panel Lid tamper) and LCD remote keypads display "Panel Lid tamper". The remote keypad sounders and extension loudspeakers will operate.

5. Enter the engineers passcode (default 1234) to silence the sounders.

6. Connect the standby battery.

Power-Up Checks

When the initial power-up checks have been completed, check the following:

1. Switch off the 240V mains supply and measure the DC voltage at each remote keypad and ensure the voltage is greater than 11V whilst the system is powered from its standby battery.

2. Switch on the 240V mains supply and measure the DC voltage between the mains earth connection and AUX. +12V. Then measure the DC voltage between the mains earth connection and AUX. 0V. In both cases the measurement should be 1V or less. If the voltage is greater than 1V, the system has an "Earth Fault" and all cables should be checked for isolation to Earth

3. Using a voltmeter measure the DC voltage across the control panel PCB test points (V) and calculate the system current consumption (see page 11). Ensure that the reading is not greater than 1.0A (1.5A for TS690ID).

4. Repeat test (3) with the system in an alarm condition and ensure that the reading is not greater than 1.0A (1.5A for TS690ID).

NVM Defaults

Section	Option	Default
User Codes	User 00 Engineer	1234
	User 01 Master	5678
Panel Outputs	Panel Output 1	Walk Test
	Panel Output 2	Courtesy Light
	Panel Output 3	Switch 12V
	Panel Output 5	Code Accepted
	Panel Output 6, 7, 8	Code Accepted
Digicom Outputs	Digicom Output 1	Fire
	Digicom Output 2	PA
	Digicom Output 3	Alarm
	Digicom Output 4	Set
	Digicom Output 5	Active Omit
Digicom Channels	Digi Channel 1	Fire
	Digi Channel 2	PA
	Digi Channel 3	Alarm
	Digi Channel 4	System Set
	Digi Channel 5	Active omit
	Digi Channel 6	Always Off
	Digi Channel 7	Conf. Alarm
	Digi Channel 8	Always Off
System Timers	00: Abort Delay	180 seconds
	01: No. Re-arms	003
	02: Settle Time	007 seconds
	03: Pset Com.Dly	000 seconds
	04: Exit Time	030 seconds
	05: Entry Time	015 seconds
	06: Bell Dur.	020 minutes
	07: Bell Delay	000 minutes
	08: Double Knock	008 seconds
	09: Test Time	014 days
	10: 2nd Entry	000 seconds
	11: Part Set Entry	000 seconds
	12: Monitor Dur.	000 seconds
	13: Pset Bel.Dly	000 seconds
	14: Courtesy Dur.	030 seconds
	15: No. Rem. Reset	010
	16: Modem Rings	005
	17: P.I.D Alarms	005
	18: AC Off Dly	000 minutes
	19: Test Call	000 days
	20: Alarm Confirm	030 minutes
	21: Line Flt Dly	000 minutes
System Timers	22-Service Time	000 months
	23-Test Call At	003
Setting Modes	Full Set	Final Exit Setting
	Part Set A	Timed Exit
	Part Set B	Timed Exit
	Part Set C	Timed Exit

Section	Option	Default
Rem Reset	Algorithm	004
Configuration	00: Bell is an SAB	Yes
	01: User 1 Limited	No
	02: Fire Signals All	No
	03: Silent 24hr Ccts	No
	04: Enable Duress	No
	05: Invert Abort O/P	No
	06: SET with LF	Yes
	07: User Reset	Yes
	08: Extended Format	No
	09: Hi-Sec Engineer	No
	10: Tamps User Reset	Yes
	11: Do Battery Test	No
	12: F.Exit is Night	No
	13: Use code+ Enter	No
	14: Show P.set disp.	Yes
	15: Dial Consec.	Yes
	16: SET with AC Off	Yes
	17: Loud Chime Tones	No
	18: Invert Output 1	No
	19: Invert Digi O/Ps	No
	20: On-Line Key pad	Yes
	21: Restore P.I.D	Yes
	22: User Authorised	No
	23: Mimic Alrm & Flt.	No
	24: Monitor Off Hook	No
	25: Answer Phone Def.	No
	26: Send Set/Unset	Yes
	27: Tampers always	Yes
	28: 24Hr Ccts always	Yes
	29: Keypad PA Silent	No
	30: Sndrs on Confirm	No
	31: Bells on Confirm	No
	32: Conf After Entry	No
	33: Confirmation On	Yes
	34: Entry Kpd Lock	No
	35: Tamper as Burg	No
	36: Entry Conf 2cct	No
	37: Unconf Usr Rst	Yes
	38: Keypad PA On	No
Modem Options	Call Back No 1, 2 & 3	Blank
	Modem Password	Blank
	Modem Site No.	Blank

Engineer's Menu 1

Introduction

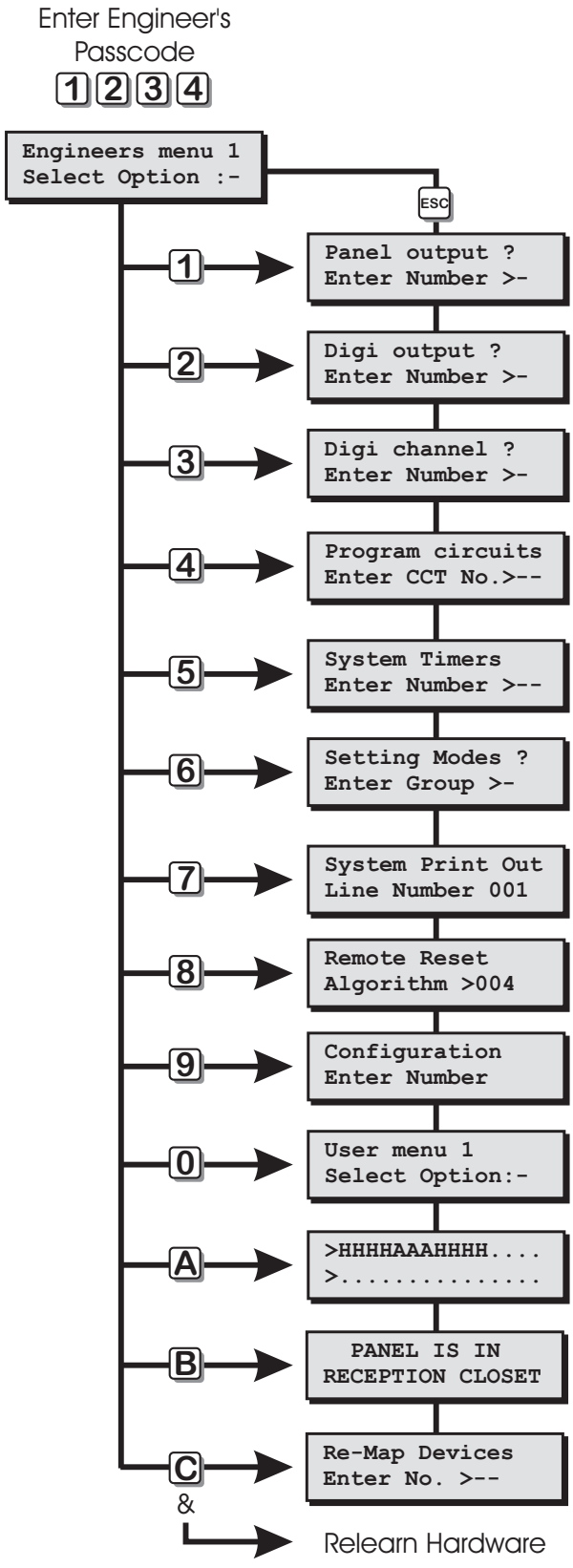
Engineers menu 1 is the first of two engineers menus, which is selected when the engineer's passcode is entered. The engineer may leave "Engineer menu 1" by pressing the [ESC] key. The system will return to the unset condition but the remote keypads will show "Engineer-on-site". This message will be cleared the next time a valid user passcode is entered or by exiting the engineer's mode via user menu 1.

Menu contents

Hot key	Option	Page
1	Program Panel Outputs	26
2	Program Digicom Outputs	26
3	Program Digicom Channels	26
4	Program Circuits & Attributes	29
5	Program System Timers	31
6	Program Setting Modes	33
7	System Printout	33
8	Remote Reset Number	34
9	Program Configuration	34
0	Go to User Menu 1	36
A	Learn Devices (TS690ID Only)	37
B	View Location Text	37
C	Re-Map Devices (TS690ID Only) & Relearn Hardware	38

☞ *Whilst Engineer's mode is selected all tampers are not monitored.*

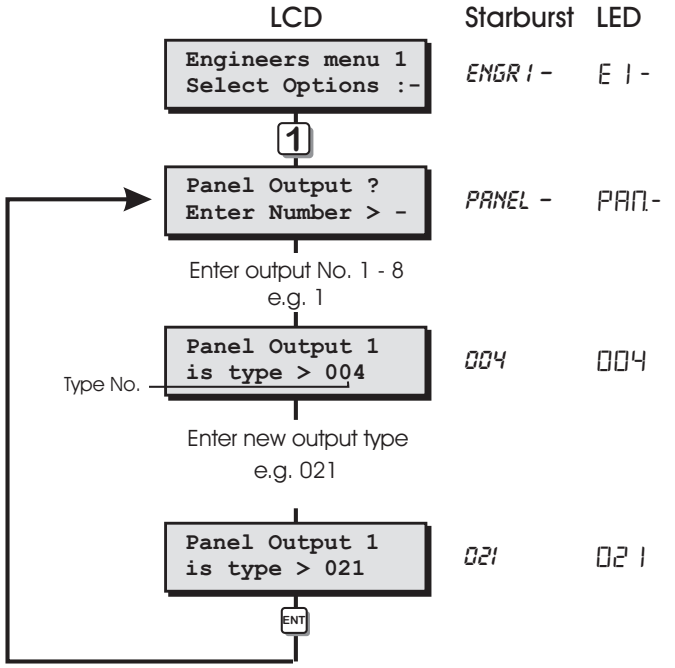
☞ *After performing a factory restart or on-site restart the system will show "RELEARN REQUIRED" (RESET CONFIG) when the engineer exits from engineers mode. This message is cleared by performing a "Hardware Relearn", see page 38.*



Engineers Menu 1

Panel Outputs [1.1]

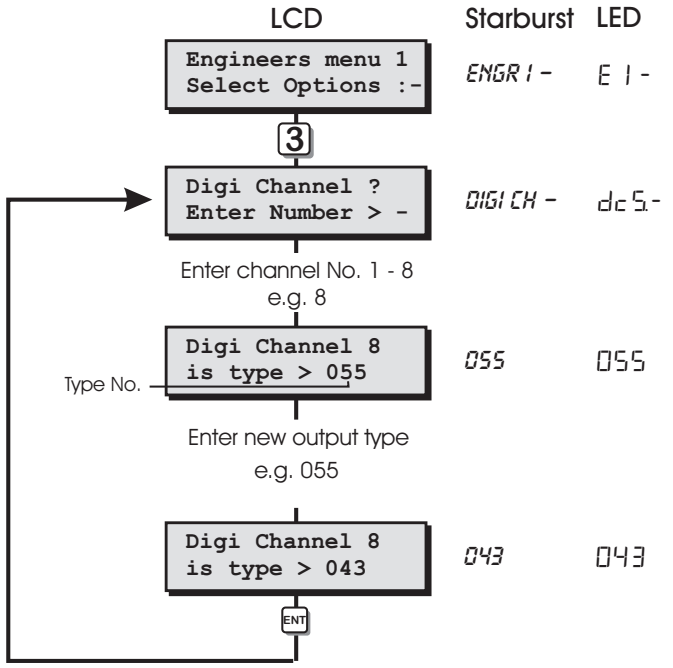
Outputs 1-3 on the control panel and remote keypad outputs 5-8 can be programmed to any of the output types shown on pages 26 to 29.



Panel Outputs Flowchart

Digicom Channels [1.3]

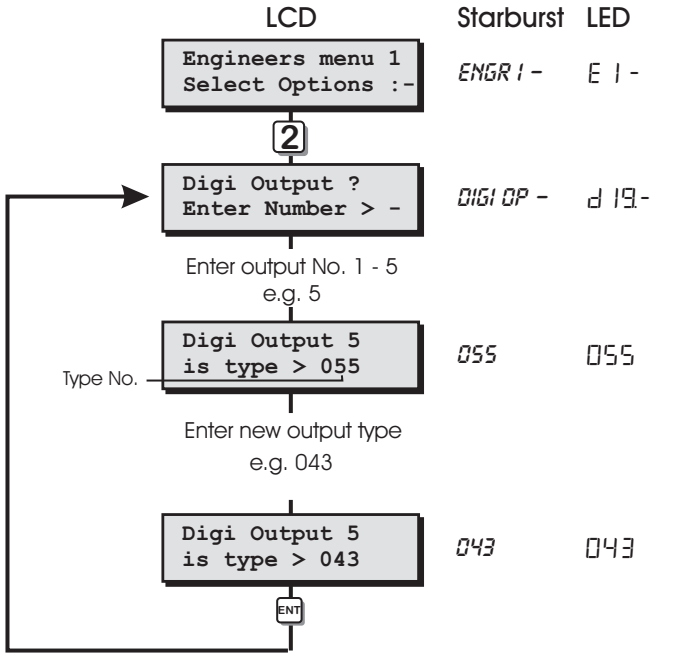
The 8 plug-on digicom channels can be programmed to any of the output types shown on pages 26 to 29.



Digi Channels Flowchart

Digicom Outputs [1.2]

You can program the 5 digicom outputs on the control panel PCB to any of the output types shown on pages 26 to 29. In addition, all outputs can be inverted, *see "Configuration option 19" on page 35.*



Digi Outputs Flowchart

Programmable Output Types

No	Type/Description

000 Bell On

Activates when the main Bell trigger is on and deactivates at the end of the Bell Duration time or when the alarm is cancelled by the user.

001 Strobe On

Activates when the Strobe trigger is on, and deactivates when the alarm is cancelled by the user.

002 Switch 12V

Activates when the system is set and deactivates when an alarm occurs or the system is unset. This output is normally used for latching detectors.

003 Detector Reset

Normally active at all times and deactivates for 3 seconds when a valid passcode is entered prior to setting the system. This output is normally used for detectors that require power to be removed in order to reset them, e.g., smoke detectors.

No	Type/Description

004 Walk Test
Activates when the "Walk Test" option is selected and deactivates when the "Walk Test" option is finished.

005 Alarm
Activates when an intruder alarm is detected and deactivates when the alarm is reset or aborted.

006 P.A.
Activates when a PA alarm is detected and deactivates when the alarm is reset.

007 Fire
Activates when a Fire alarm is detected and deactivates when the alarm is reset.

008 System Set
Activates when any ward is set and deactivates when the system is fully unset.

009 Code Accepted
Activates for 5 seconds following entry of any valid passcode.

010 24 Hour
Activates when a 24Hr alarm is detected and deactivates when the alarm is reset.

011 Alarm Confirm
Activates when a different detector causes an alarm and remains active until an engineer or user resets the system. This output is normally used for an ALARM CONFIRMATION signal.

012 Courtesy Light
Activates during entry and when any remote keypad is used. The duration of this output is controlled by the setting of the "COURTESY DUR" timer.

013 Engineer On Site
Activates when the engineer's passcode is entered and deactivates when a user passcode is entered.

014 Circuits Omitted
Activates when any circuit is omitted and deactivates when all circuits are reinstated.

015 Auxiliary
Activates when an Auxiliary alarm is detected and deactivates when the alarm is reset.

016 Part Set C Selected
Activates when "Part Set C" is selected. Deactivates when the system is unset.

No	Type/Description

017 Part Set B Selected
Activates when "Part Set B" is selected. Deactivates when the system is unset.

018 Part Set A Selected
Activates when "Part Set A" is selected. Deactivates when the system is unset.

019 Full Set Selected
Activates when "Full Set" is selected. Deactivates when the system is unset.

020 Tamper Fault
Activates when a Tamper alarm is detected and deactivates when the alarm is reset.

021 Line Fault
Activates when a telephone line fault is detected and deactivates when the fault is cleared.

022 Mains Off
Activates when mains power is removed and deactivates when the mains power is restored.

023 Exit / Entry
Activates when the panel is in the exit or entry mode.

024 Test Fail
Activates when a circuit fails test, deactivates when reset by the engineer.

025 First Knock
Activates when a double knock circuit is activated for the first time. Deactivates when the circuit is activated for the second time or when the system is reset.

026 Comms Failed
Activates for 5 seconds when the plug-on digicom fails to communicate.

027 Comms Success
Activates for 5 seconds when the plug-on digicom communicates successfully.

028 Comms Active
Activates when the plug-on digicom is active and deactivates when the plug-on digicom is inactive.

029 2nd Entry
Activates when the second entry timer is started and deactivates when the second entry timer expires.

030 Entry
Activates when the panel is in the entry mode.

031 Exit
Activates when the panel is in the exit mode.

No	Type/Description

032 Duress Alarm
Activates when a duress passcode is entered and deactivates when the duress alarm is reset.

033 System Part Set
Activates when the system is part set and deactivates when the system is fully set or unset.

034 Battery Fault
Activates when a battery fault occurs and deactivates when the battery fault is cleared.

035 Set Fail
Activates when the system fails to set and deactivates when the set fail condition is reset by the user.

036 System Open
Activates when the system is unset,, deactivates when the system is fully set or part-set.

037 New Alarm
Activates for 2 seconds when any circuit causes a new alarm condition.

038 24hr Circuits Omitted
Activates when one or more 24 Hour circuits are omitted.

039 Modem Lockout
Activates when the modem is locked-out (four failed attempts). Deactivates when a master user passcode is entered or after 4 hours.

040 Chime Mimic
Activates for 2 seconds when a circuit that is programmed as "chime" is activated.

041 Shunt Group Active
Activates when the shunt code has been used to shunt a group of circuits. Deactivates when the shunt code is used again to re-instate the circuits.

042 Timed Output
Activates when a "Monitored" circuit is triggered and remains active for the duration of the "Monitor Delay" see System Timers.

043 Abort
Activates for 5 seconds after an alarm is aborted by the user. The period in which the alarm may be aborted is set by the "Abort Delay" see System Timers.

No	Type/Description

044 General Fault
Activates during battery fault or when the system is prevented from being set. Deactivates when all faults are cleared.

045 Battery Test
Activates for 1 minute on the hour every hour. This output is used to test the battery in remote PSU's using a 519FM monitor PCB).

046 Service Call
Activates when the system is on-line with a remote PC and Lineload software.

047 System Full Set
Activates when all areas within the system are set and deactivates when any area is unset.

048 Strobe on Set
Activates when there is an alarm, and deactivates when the alarm is cancelled by the user. This output is also active for 10 seconds after a user sets the system with full alarm response.

049 Service Call
The contral panel activates this output when it requires a service call. The control panel deactivates the output when an engineer enters programming mode.

050 PC Output 1
This output type is switched on and off via the PC and Lineload software.

051 PC Output 2
This output type is switched on and off via the PC and Lineload software.

052 Sounder Control
Normally used as the 0V connection for an extension loudspeaker so that only system alarm tones are generated. Only suitable for Panel Outputs 1 and 2.

053 ID Loop Shorted
The control panel activates this output if something shorts the ID loop.

054 Call Engineer
Activates when the system requires an "Engineer Reset", deactivates when the system is reset by the engineer or "Remote Reset".

055 Always Off
Never activates.

056 Active Omit
If an event triggers a latching circuit type (for example a door or break glass, but NOT a PIR),

and the circuit remains active until the end of the confirmation time then the control panel omits the active zone and triggers the Active Omit output. The control panel deactivates the output when a user disarms the system.
Use existing output type 036 = System Open to indicate Unset Complete.

100 - 137 Circuit Mimic
Will mimic (active when circuit is active) circuits 01 to 38 respectively.

200 - 237 Circuit Alarms
Active when a circuit causes an alarm, or is activated during a walk test, for circuits 01 to 38 respectively.
Following a wallk test, the operator can confirm the operation of all the appropriate circuits at a mimic panel. The control unit clears these indications when the operator enters a valid passcode.

Program Circuits [1.4]

The TS690 can monitor up to 14 detection circuits, whereas the TS690ID can monitor up to 38 detection circuits. Each circuit must be programmed in order for the system to respond correctly.

Circuit Types

The circuit type defines how the circuit will respond when it is triggered. The following circuit types are available:

0 Not Used
A circuit that will never generate any alarm.

1 Night
A circuit that will generate a full alarm when the system is set.

2 24hr
A circuit which is monitored at all times. When triggered in the unset condition a local alarm is generated and when triggered in the set condition a full alarm is generated.

3 PA Silent
A circuit which is monitored at all times. When triggered it will activate any outputs that are programmed as P.A.

4 PA Audible
A circuit which is monitored at all times. When triggered it will activate any outputs that are programmed as P.A. and generate a full alarm condition.

5 Fire
A circuit that is normally connected to a smoke detector. When triggered it will generate a fire tone on the internal sounders, the external sounders are pulsed for the bell duration and any outputs programmed as fire will be activated.

6 Auxiliary
A circuit which is monitored at all times. When triggered it will activate any outputs programmed as Auxiliary.

7 Final Exit
This must be the first detector or door contact that is triggered when entering the protected area. When the setting mode for the system is programmed for Final Exit setting, opening and closing of this circuit during the exit procedure will cause the system to set. Once set, activation of this circuit will start the entry timer.

8 Exit Terminator
A circuit that is normally connected to a push button outside the protected premises, which can be used to finally set the system or area.

9 Keyswitch
(Also includes Lockset.) A circuit that may be connected to a keyswitch to allow setting and/or part-setting of the system.

The Keyswitch circuit has two groups of attributes. The first group of attributes control the wards that are set/unset when the circuit is switched between "Healthy" and "Active". The second group of attributes selects the type of Keyswitch (Momentary or Latched) or selects the Lockswitch zone type.

When programming the Keyswitch circuit the eight standard attributes are not available, instead the attributes are used to select the Keyswitch operation as follows:

[1] Full Set Group - "Healthy" to "Active".

[2] Code Set Group A - "Healthy" to "Active".

[3] Code Set Group B - "Healthy" to "Active".

[4] Code Set Group C - "Healthy" to "Active".

[5] Lockset - See Lockset Exit Mode.

[6] Momentary - Use for Momentary type keyswitches. De-select for Latched keyswitches.

[7] Inverted - Inverts the operation of the keyswitch.

If the "Keyswitch" is not assigned to any of the above options, the circuit becomes a "Monitored" circuit. A "Monitored" circuit is monitored at all times. When triggered it will activate any outputs that are programmed as Timed Output and log the event.

Circuit Attributes

Each circuit type can have one or more attributes assigned to it to alter its operation. The following circuit attributes can be programmed:

1 Access
Circuits programmed with this attribute are automatically isolated during the entry procedure to allow a "walk through" route for the user to access the remote keypad. The "Access" attribute can only be assigned to Night and Final Exit circuit types.

2 Double Knock
Circuits programmed with this attribute will only cause an alarm condition if:

a) The circuit is activated twice within the Double Knock window (this time may be set in the System Timers menu).

b) The circuit remains active for the whole duration of the Double Knock window. The "Double Knock" attribute can only be assigned to Night, 24hr, PA and Auxiliary circuit types.

3 Test
Circuits with this attribute will be disabled from the system for the period set by the "Test Time" (see System Timers). If the circuit is activated during this period the activation will be logged and the user is informed of the circuit failure when trying to set the system. The test fail message may only be cleared with the Engineers passcode. If at the end of the test period no activations have occurred the circuit is automatically removed from test and behaves as normal. The test period is initiated by entering the Engineers passcode. The "Test" attribute can only be assigned to Night, 24hr, PA Silent, PA Audible, Fire, Auxiliary, and circuit types.

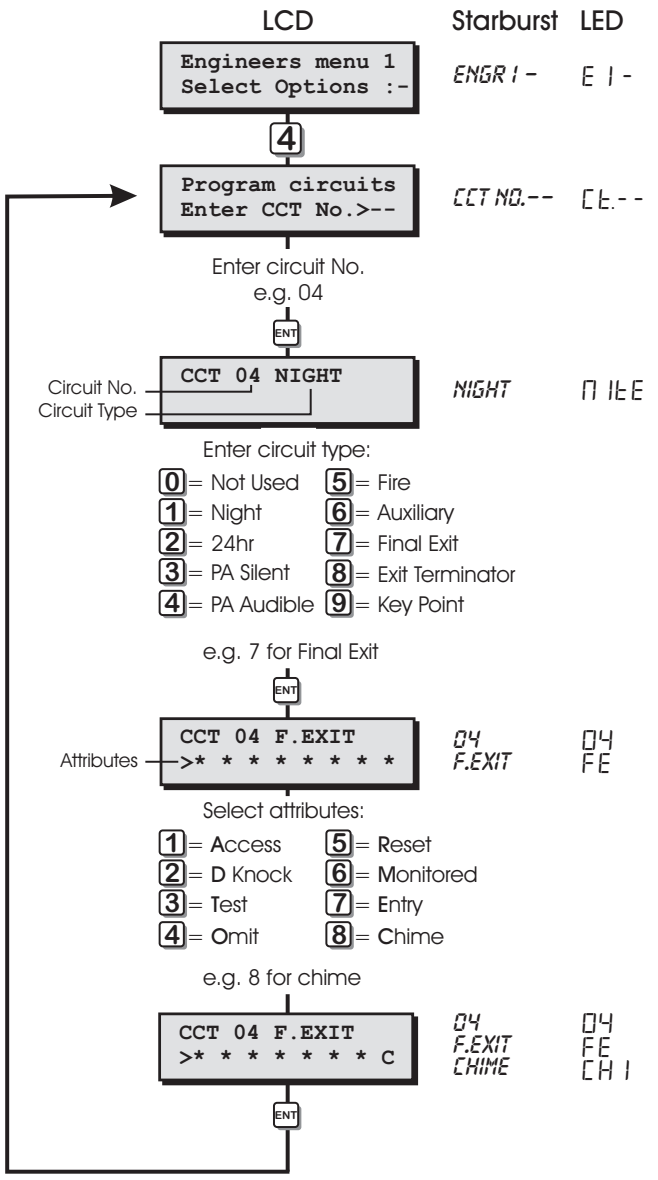
4 Omittable
Circuits with this attribute are allowed to be omitted by the user when setting the system. The "Omit" attribute can only be assigned to Night, 24hr, and Auxiliary circuit types.

5 Reset
This attribute is normally assigned to a circuit that is connected to a vibration or smoke detector, so that during the "Detector Reset" period the circuit is not monitored. The "Reset" attribute can only be assigned to Night, 24hr, Fire and Auxiliary circuit types.

6 Monitored
Circuits with this attribute will activate the "Timed Output" when triggered. The "Monitored" attribute can only be assigned to Night, 24hr, Fire, Auxiliary and Final Exit circuit types.

7 Entry
Circuits with this attribute will initiate the entry procedure when the system is part-set and respond as normal when full set. This attribute must be assigned to all circuits that are required to initiate the entry procedure in the part-set condition. The "Entry" attribute can only be assigned to Night, 24hr and Final Exit circuit types. When assigned to a 24 Hour circuit type, the circuit can be used to initiate the entry procedure. Once the system is unset the 24 hour will revert to normal operation.

8 Chime
Circuits with this attribute will cause the internal sounders and remote keypad sounders to generate a two tone "chime" sound if the circuit is activated. The "chime" attribute may only be assigned to Night, 24hr, Auxiliary, Final Exit and Exit Terminator circuit types.



Program Circuits Flowchart

System Timers [1.5]

The system timers are as follows:

00 Abort Delay

This timer sets the period in which the alarm signal may be aborted following an alarm condition. When an alarm occurs, the "Abort Output" (043) is only activated if the system is unset within this period. If the system is unset after this period the abort output is NOT activated. The "Alarm" (005) output is also restored when the abort output is activated. This timer has a working range of 000-199 seconds. *(Default: 180 Secs)*

01 No. Re-arms

At the end of the bell duration time the system re-arms all circuits that are healthy. Circuits that are still in an alarm condition are isolated until they change to a healthy condition. This counter controls the number of times that a "circuit" will re-arm before it is locked out of the system. This counter has a working range of 000-199. *(Default: 003)*

02 Settle Time

When setting the system by "Final Exit" or "Exit Terminator", detectors that are on the exit route sometimes take 3-4 seconds to settle after activation. The delay programmed in this timer is used to allow these detectors to settle before the system or area is set. This timer has a working range of 000-199 seconds. *(Default: 007 Secs)*

03 Pset Com. Dly

When the system is part-set the communication of an alarm signal to the central station can be delayed by the value set in this timer. If the timer is set to 199 the part-set communications are disabled. This timer has a working range of 000-199 seconds.

☞ ***If you set this timer to 199 then the control panel overrides keypad lockout during part-set.***
Cooper Security also recommends that you change the digicom output type (see Eng 1.2 or 1.3) from 008 to 047. This will stop the control panel transmitting a close signal when the users part set the system.

(Default: 000 Secs)

04 Exit Time

This timer sets the delay between the user initiating the exit procedure and the system (or area) actually setting. If during the exit time an "Exit Terminator" circuit is activated the exit time is cancelled and the system sets immediately. This timer has a working range of 000-199 seconds. *(Default: 030 Secs)*

05 Entry Time

When the system is set or part-set, and the entry procedure is initiated, the entry timer starts to count down. If a valid user passcode has not been entered when the timer reaches zero, the internal sounders are activated and the "2nd Entry" timer is started. This timer has a working range of 000-199 seconds. *(Default: 015 Secs)*

06 Bell Duration
This controls the duration of the external bell/sounder. If the timer is set to 199 the bell output is continuous. This timer has a working range of 000-199 minutes. *(Default: 020 Mins)*

07 Bell Delay
This timer delays the activation of the external bell/sounder and internal sounders. This timer has a working range of 000-199 minutes. Note: Any alarm during the entry procedure will cancel the bell delay. *(Default: 000 Mins)*

08 2 Act. Time (Double Knock)
This is the "Double Knock" time window in which either two circuit activation must occur within this time to generate an alarm condition. Or the circuit must remain active for the whole duration of this time to generate an alarm condition. This will only apply to circuits with the "Double Knock" attribute. This timer has a working range of 000-199 seconds. *(Default: 008 Secs)*

09 Test Time
This timer varies the number of days that "Test" attribute may be applied to a circuit. If the timer is set to 000 then circuits will remain on test until the "Test" attribute is removed. This timer has a working range of 000-030 days. *(Default: 014 Days)*

10 2nd Entry
When the "Entry Timer" has expired the "2nd Entry timer" starts to count down, if at the end of this time the system or area has not been unset then a full alarm will be generated. This timer has a working range of 000-199 seconds. *(Default: 015 Secs)*

11 P.Set Entry
This timer sets the entry period for the system when the system is in the part-set condition. If the timer is set to 000 the part-set entry timer is the same as the main entry timer (timer 05). This timer has a working range of 000-199 seconds. *(Default: 000 Secs)*

12 Monitor Dur.
This timer affects the duration of the "Timed Output" (No. 042). This timer has a working range of 000-199 minutes. *(Default: 000 Secs)*

13 P.Set Bell Dly
This timer delays the activation of the external bell/sounder and internal sounders when the system is part set. Note that this timer operates when alarm confirmation is disabled, and has no effect when alarm confirmation is enabled. This timer has a working range of 000-199 minutes. Note: Any alarm during the entry procedure will cancel the bell delay. *(Default: 000 Mins*

14 Courtesy Dur.
This timer is used to control the duration of the output type "Courtesy Light". This timer has a working range of 000-199 seconds. *(Default: 030 Secs)*

15 No. Rem. Resets
This counter determines how many coded "Remote Resets" can occur before the system locks into engineer reset only. Note: Remote Reset by the "Rem Reset" input terminal is also affected by this counter. This counter has a working range of 000-199. *(Default: 010)*

16 Modem Rings
This counter is for use with the DC6, it allows the installer to specify how many rings are required before the DC6 picks up the call. If the counter is set to 000 it will pick the call up as soon as any incoming ringing is detected. This counter has a working range of 000-199. *(Default: 005)*

17 P.I.D Alarms
When using the DC6 and "Contact ID Extended Reporting". The number of Contact ID alarms that are transmitted to the central station per circuit are controlled by the value of this counter. e.g., if the counter is set to 003 then all circuits will report 3 activation's before they are locked out from sending any more. Note: this does not affect the re-arm of the zone. This counter has a working range of 000 - 199. *(Default: 005)*

18 AC Off Dly
This timer delays the "audible" mains off indication when the mains power is removed. The display and any outputs programmed as "Mains Off" are not affected. This timer has a working range of 000-199 minutes. *(Default: 000 Secs)*

19 Test Call

If the system is fitted with a DC6, it is possible for the control panel to make the DC6 send a timed test call to the central station. The "Test Call" timer sets the period of activation, i.e., 000=Disabled, 001=daily, 007=weekly etc. Once programmed the digicom will send the test call at the hour defined by timer 23. This timer has a working range of 000-199 days. *(Default: 000 Days)*

20 Alarm Confirmation

This timer controls the duration of the "Alarm Confirmation" period. The timer has a working range of 000-199 minutes. *(Default: 30 mins)*

21 Line Flt Dly

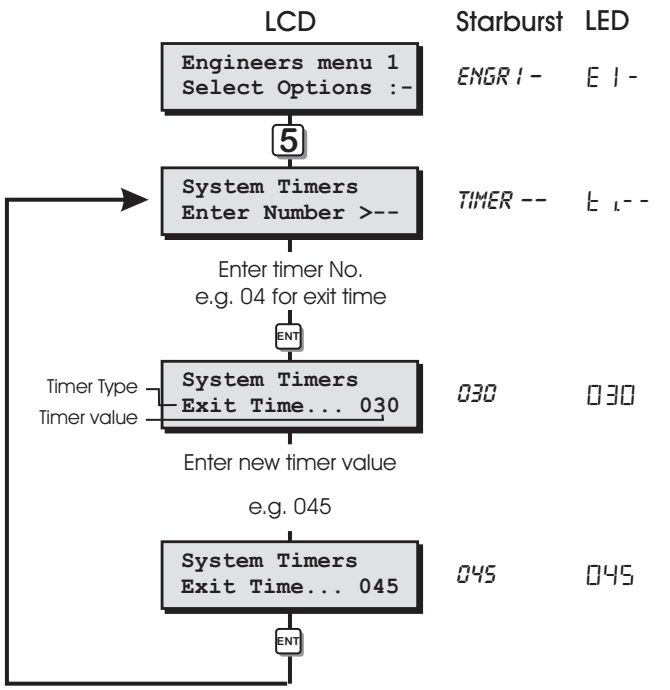
This timer delays the "audible" line fault indication when a telephone line fault occurs. The display and any outputs programmed as "Line Fault" are not affected. If the timer is set to 199 the monitoring of line fault is disabled. This timer has a working range of 000-199 minutes. *(Default: 000 Mins)*

22 Service Time

The installation company may use this timer to periodically generate a "SERVICE REQUIRED" message so that the user is reminded that a service call is required. The users may continue to set and unset the system. When the engineer attends the site and enters their passcode the message is cleared. The service timer is re-started when the engineer re-selects this timer option. To disable this feature set the timer to 000. This timer has a working range of 000-199 months. *(Default: 000 Months)*

23 Test Call At

This timer is used in conjunction with timer 19, it controls the hour at which a test call is sent to central station. For example, if the timer is set to 014 the test call will be signalled at 14.00 (2.00pm). This timer has a working range of 000 - 023. *(Default: 003)*



System Timers Flowchart

Setting Modes [1.6]

The setting mode for full set and each part set can be configured to the following setting modes:

1 Final Exit

The system will set when the "Final Exit" circuit is activated and after the "Settle Time" has expired.

2 Exit Terminator

The system will set when the "Final Exit" circuit is activated, the "Exit Terminator" button is pressed and after the "Settle Time" has expired.

3 Timed Exit

The system will set when the "Exit Time" has expired or if the "Exit terminator" button is pressed and the "Settle Time" has expired.

4 Instant

The system will set instantly.

5 Deferred

As timed exit, however, if any circuits are activated during the exit procedure the exit timer is restarted.

6 Lock Set

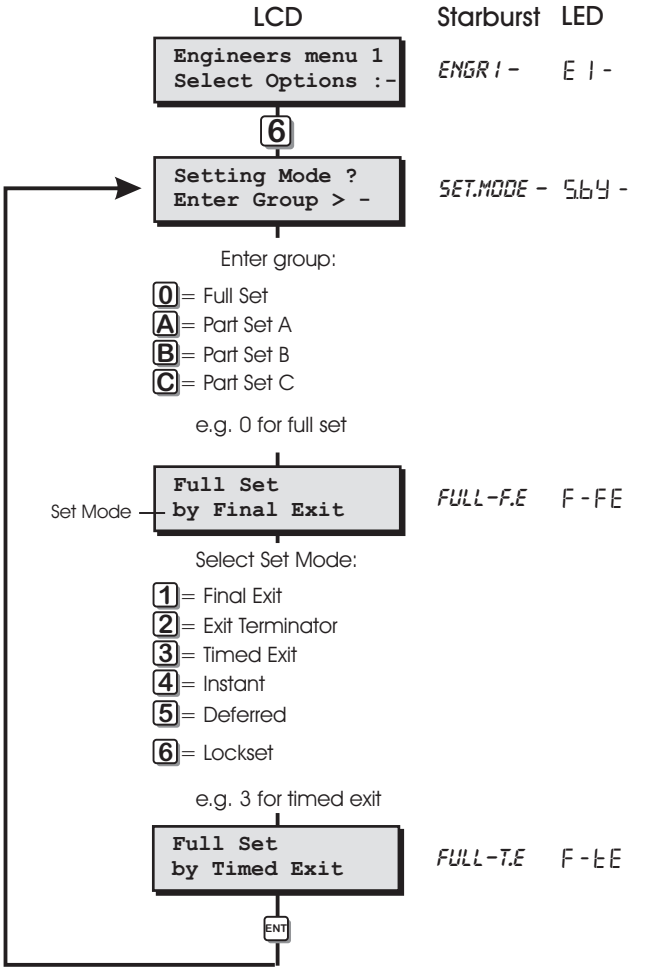
To use this method you must install a lock switch with the contacts connected to a lockset zone type.

To set the system the user first enters their access code at a keypad or operates a keyswitch. The control unit starts the exit tone. Note that the exit time is infinite in this option. The user then operates the final exit zone and turns the key in the lock switch to "locked". The system sets seven seconds after the lock switch contacts open.

To unset the system the user turns the lock switch to "unlocked" (closing the lock switch contacts). The keypads start a continuous tone. At this point the user can lock the lockswitch again without causing any alarm. When the user opens the final exit zone the control unit starts the entry timer. The user completes entry by unsetting the system in the normal way.

Note that when the user unlocks the lockswitch the control unit disables Alarm Confirmation. The control unit enables Alarm Confirmation again if the user locks the lockswitch without starting the entry timer.

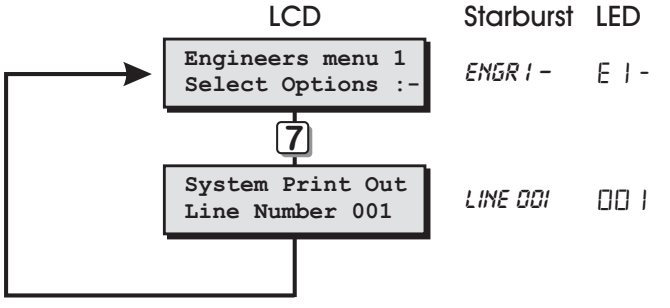
If an intruder opens the final exit door without first unlocking the lockswitch then the control unit immediately starts an unconfirmed alarm. If the intruder goes on to violate another zone and you have enabled Alarm Confirmation then the control unit sends a confirmed alarm.



Setting Modes Flowchart

Do System Print [1.7]

If a printer is connected to the control panel a print out of all system parameters can be obtained.

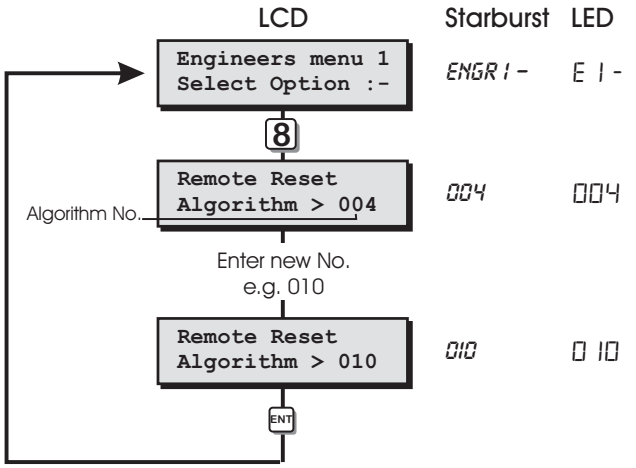


System Print Flowchart

Remote Reset Algorithm [1.8]

When the system is programmed for "Engineer Reset" the requirement to send an engineer to site can be overridden by the user by using the "Remote Reset" facility. If an alarm is generated the system will respond with a four digit "seed" code which the user quotes to the Alarm Receiving Centre or alarm company. The "seed" code is then entered into a decoder and a unique "Remote Reset" code is generated. This is passed back to the user and on entering the "Remote Reset" code, the system is reset.

The "Remote Reset" code is generated using an algorithm identified by a 3 digit number. Alternative algorithms can be selected but these must correspond to that used by the ARC (or alarm company) otherwise the "Remote Reset" code will be incorrect. *(Default: 004)*



Remote Reset Alorithm Flowchart

Configuration [1.9]

The configuration options are as follows:

00 Bell is an SAB
When programmed as "Yes" the control panel bell output applies 0V when active. When programmed as "No" the control panel bell output removes 0V when active. *(Default: Yes)*

01 User 1 Limited
When programmed as "Yes" user 1 is disabled from options 6 and 8 in user menu 2. When programmed as "No" user 1 has access to all user menus and options. *(Default: No)*

02 Fire signals all
When programmed as "Yes" fire alarm activations are signalled to the ARC at all times. When programmed as "No" fire alarm activations are signalled to the ARC only when the system is full set. *(Default: No)*

03 Silent 24hr ccts
When programmed as "Yes" 24hr circuit are silent. When programmed as "No" 24hr circuits are audible. *(Default: No)*

04 Enable duress
When programmed as "Yes" the reversal of the first two digits on any passcode will generate a duress alarm. When programmed as "No" the reversal of the first two digits on any passcode will NOT generate a duress alarm. *(Default: No)*

05 Invert Abort O/P
When programmed as "Yes" the abort output is normally active and deactivates for 5 seconds when an alarm is aborted. When programmed as "No" the abort output is normally inactive and activates for 5 seconds when an alarm is aborted. *(Default: No)*

06 SET with LF
When programmed as "Yes" the system can be set with a telephone line fault, however the user will be asked to confirm this at the time of setting. When programmed as "No" the system cannot be set with a telephone line fault. *(Default: Yes)*

07 User reset
When programmed as "Yes" alarms can be reset by the user. When programmed as "No" alarms can only be reset by the engineer or via remote reset. Note that even though user reset is disabled, while alarm confirmation is enabled then users can reset the system after an unconfirmed alarm. *(Default: Yes)*

08 Extended format
When programmed as "Yes" the plug-on digicom will report using Contact ID extended format. When programmed as "No" the plug-on digicom will report using standard fast format. *(Default: No)*

09 Hi Sec Engineer
When programmed as "Yes" the engineer must enter his passcode and remote reset number to gain access to engineer's menu 1. When programmed as "No" only the engineer's passcode is required to access engineer's menu 1. *(Default: No)*

10 Tamp user reset
When programmed as "Yes", tamper alarms can be reset by the user. When programmed as "No", tamper alarms can only be reset by the engineer or via remote reset. *(Default: Yes)*

11 Do battery test
When programmed as "Yes" the control panel battery and any monitored PSU batteries are tested every hour and when exiting the engineer's mode. When programmed as "No" the control panel battery and any monitored PSU batteries are not tested. *(Default: No)*

12 F.Exit is NIGHT
When programmed as "Yes" final exit circuits change to night circuits when the system is part set. When programmed as "No" final exit circuits remain as final exit circuits when the system is part set. *(Default: No)*

13 Use code + Enter
When programmed as "Yes", all passcodes require an additional press of the [ENT] key to gain access to the system. When programmed as "No", access to the system only requires the entry of the passcode. *(Default: No)*

14 Show P.set disp. (LED Keypads)
When programmed as "Yes" the display will alternate between showing the time and wards that are set when the system is part set. When programmed as "No" the display will always show the time when the system is part set. *(Default: Yes)*

15 Dial Consec.
When programmed as "Yes", the plug-on digicom attempts calls consecutively. When programmed as "No", the plug-on digicom attempts calls alternatively. *(Default: Yes)*

16 SET with AC off
When programmed as "Yes", the system can be set without mains power. When programmed as "No", the system cannot be set without mains power. *(Default: Yes)*

17 Loud Chime tones
When programmed as "Yes" the chime tones are always at full volume. When programmed as "No" the chime tones are at the level set by VR1 on the main PCB. *(Default: No)*

18 Invert Output 1
When programmed as "Yes" panel output 1 is normal. When programmed as "No" panel output 1 is inverted. *(Default: No)*

19 Invert Digi O/Ps
When programmed as "Yes" the five digicom outputs on the control panel switch from 0V to +12V when active (+ve applied). When programmed as "No" the five digicom outputs on the control panel switch from +12V to 0V when active (+ve removed). *(Default: No)*

20 On-Line keypad
When programmed as "Yes" the Menvier Lineload On-Line Keypad feature is enabled. When programmed as "No" the Menvier Lineload On-Line Keypad feature is disabled. *(Default: Yes)*

21 Restore P.I.D
When programmed as "Yes" the Contact ID restore status is transmitted. When programmed as "No" Contact ID restore is not transmitted. *(Default: Yes)*

22 User Authorised
When programmed as "Yes" the Menvier Lineload software can only write information to the control panel after the user has authorised remote communications. When programmed as "No" the Menvier Lineload software can write information to the control panel without user authorisation. *(Default: No)*

23 Mimic Alm & Flt.
When programmed as "Yes" any outputs programmed as the type "Circuit Alarm" will activate when the relevant circuit is in alarm or in a fault condition. When programmed as "No" any outputs programmed as the type "Circuit Alarm" will activate when the relevant circuit is in alarm. *(Default: No)*

24 Monitor off hook
When programmed as "Yes", the plug-on digicom will monitor the telephone line for off-hook conditions (high security line monitoring). When programmed as "No", the plug-on digicom will only monitor the telephone line for line cut conditions (low security). *(Default: No)*

25 Answer Phone Def

When programmed as "Yes", the plug-on digi-modem will only answer incoming calls after a second attempt. When programmed as "No", the plug-on digi-modem will answer incoming calls after the modem ring counter has expired. *(Default: No)*

26 Send Open/Close

This configuration option will only effect Extended format signalling, see configuration option 08. When programmed as "Yes", the plug-on digi-modem will send Open and Close signals (codes 401 & 409) to the central station. When programmed as "No", the plug-on digi-modem will not send Open and Close signals (codes 401 & 409) to the central station. *(Default: Yes)*

27 Tamper always

This configuration option will only effect Extended format signalling, see configuration option 08. When programmed as "Yes", the plug-on digi-modem will send tamper alarm signals (codes 137 & 383) to the central station at all times. When programmed as "No", the plug-on digi-modem will only send tamper alarm signals to the central station when the system is set or part set. *(Default: No)*

28 24Hr Ccts always

This configuration option will only effect Extended format signalling, see configuration option 08. When programmed as "Yes", the plug-on digi-modem will send 24hr/Auxilliary alarm signals (codes 135 & 150) to the central station at all times. When programmed as "No", the plug-on digi-modem will only send 24hr/Auxilliary alarm signals to the central station when the system is set or part set. *(Default: No)*

29 Keypad PA Silent

When programmed as "Yes", pressing 1 & 3 on the remote keypad will generate a silent PA alarm. When programmed as "No", pressing 1 & 3 on the remote keypad will generate an audible PA alarm. *(Default: No)*

☞ ***The Keypad PA feature is only available on remote keypads fitted with version 4.0 software or above.***

30 Sounder on Confirm

When programmed as "Yes" the control unit activates the internal sounders after a confirmed alarm and any programmed bell delay. When programmed as "No" the control unit starts the internal sounders immediately after an unconfirmed alarm. *(Default = No)*

31 Bells on Confirm

When programmed as "Yes" the control unit activates the external sounders after a confirmed alarm and any programmed bell delay. When programmed as "No" the control unit activates the external bell immediately after an unconfirmed alarm. *(Default = No)*

32 Confirmation After Entry

When programmed as "Yes" the control unit sends a confirmed alarm if the intruder activates one or two separate zones after the entry timer expires. To select between one or two zones use "36 Entry conf 2 cct" When programmed as "No" the control unit disables alarm confirmation when a user starts the entry timer. *Use the "No" option to comply with DD243:2002 paras 6.4.2, 6.4.3, 6.4.4 and 6.4.6.*

(Default = No)

33 Confirmation On

When programmed as "Yes" then the Digicom reports a Channel 3 (005 Intruder) for an intruder alarm as normal. If a subsequent zone is triggered within the same set period then the Digicom reports Channel 7 (011 Confirmed Alarm). The ARC operator can now inform the appropriate police authority that the alarm is confirmed and that this is likely to be a real break in and not a false alarm.

When programmed as "No" then the control panel disables Alarm Confirmation and any Alarm Confirm outputs.

(Default = Yes)

34 Entry Keypad Lock

When programmed as "Yes" then users cannot unset the system from a keypad during entry. *Program this option as "Yes" if you are installing a DD243:2002 compliant system and the user must unset the system with a proximity detector ("Portable ACE").* The user must employ a proximity tag to disarm the system during the entry period.

When programmed as "No" then users can unset the system from a keypad during entry.

☞ ***If your make Pset Com. Dly (Eng 1.5.03) = 199 then users can unset the system from a keypad when the system is part-set.***

(Default = No)

35 Tamp as Burg

DD243: 2002 states that alarm signals and confirmation signals must be transmitted using certain codes. In some case these codes do not conform to Cooper Security Ltd's implementation of the CID standard. This option allows you to program the control unit to send tampers as alarm.

When programmed as "Yes" then the control unit sends tampers to the ARC as Intruder Alarm (CID 130). In Fast Format the control unit transfers the Digicom Tamper output (default output 8) to the Digicom Alarm output (default output 3).

When programmed as "No" the control unit sends all messages as specified in Report Mode.

(Default = No)

36 Entry Confirmation After 2 circuits

When programmed as "Yes" the control unit sends a confirmed alarm if an intruder activates two separate zones after the entry timer expires. If the control unit is in alarm before the user starts entry then only one subsequent zone violation is required.

Note: Select this option if you are installing a DD243:2002 para 6.4.5 compliant system and the user must unset the system with a proximity detector ("Portable ACE").

Whe programmed as "No" the control unit sends a confirmed alarm if the intruder activates one zone after the entry timer expires. This option does not comply with DD243:2002.

☞ ***If you program Confirmation After Entry as "No" then the setting of this option has no effect.***

37 Unconf Usr Rst

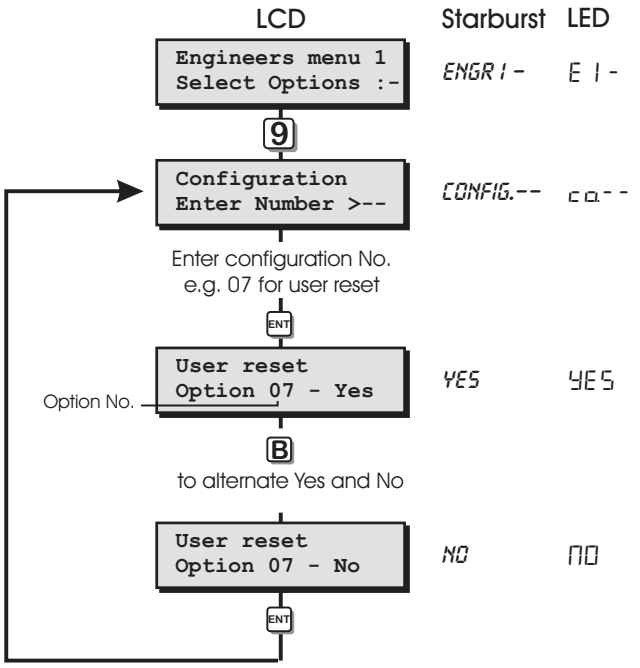
When programmed as "Yes" then users can reset the system after an unconfirmed alarm. When programmed as "No" then an engineer or the ARC must reset the system after an unconfirmed alarm.

(Default = "Yes")

38 Keypad PA On

When programmed as "Yes" then the user can start a PA alarm by pressing keys 1 and 3 at the same time. Program as "No" to remove this option.

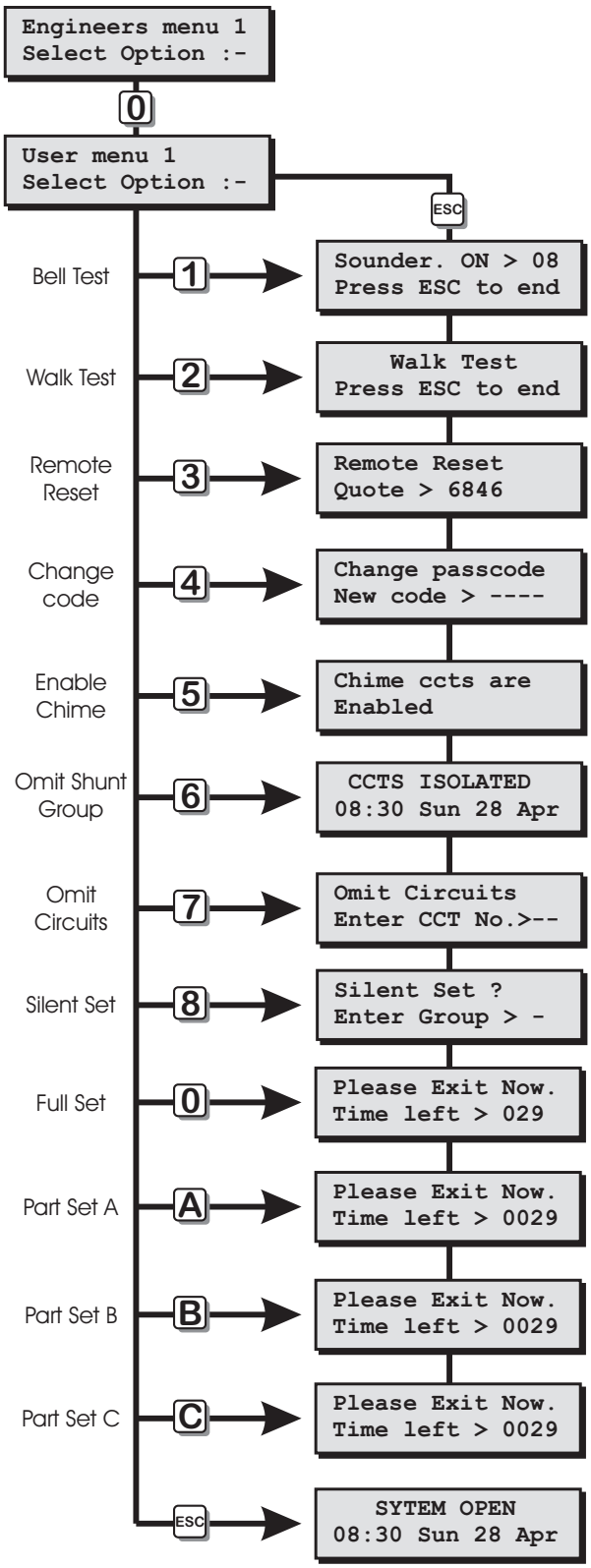
(Default = "No".)



Configuration Flowchart

Go to User Menu 1 [1.0]

This option allows the engineer to access "User menu 1", the flowchart below shows the options within "User menu 1", for full details refer to the "Operators Manual".



User Menu 1 Flowchart

Add/Clear ID Devices (TS690ID) [1.A]

This option allows the engineer to add and remove ID devices from the system. It also allows you to diagnose the ID loop.

Clear & Relearn ID Devices

This option causes the system to clear any previously learnt devices and re-scan the ID loop and learn all connected devices. In order for a device to be detected the device must NOT be in a tamper condition.

Add ID Devices

This option causes the system to re-scan the ID loop and only learn new devices that have been connected. In order for a new device to be detected the device must NOT be in a tamper condition.

Display Codes

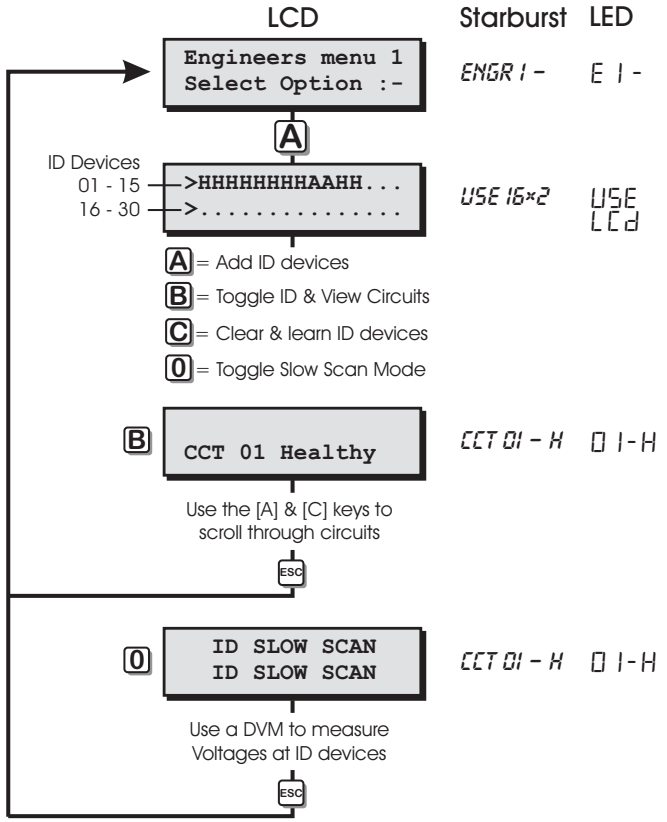
When using the "Clear/Add ID Devices" option the top line of the display shows that status of ID devices 1 to 15, the bottom line of the display shows the status of ID devices 16 to 30. The following characters are used to indicate the following status:

.	Device not fitted.
H	Device is healthy (normal)
A	Device is active (alarm).
T	Device is in tamper.
F	Device is in a fault condition (normally caused by two devices fitted with the same ID).

Slow Scan Mode

The "SLOW SCAN" mode can be used to diagnose the ID line and check for correct voltage levels at each ID device. When selected the ID loop continuously cycles through the RESET, MID and HIGH conditions (5 seconds for each). For correct operation, the voltages should be:

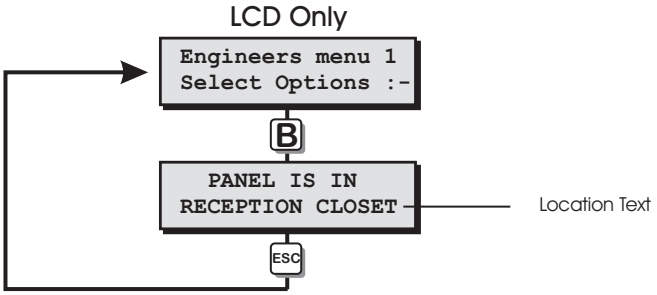
RESET	1.9V to 2.4V
MID	5.6 to 6.4V
HIGH	9.0 to 10.1V



Add/Clear ID Devices Flowchart

View Location Text (LCD Only) [1.B]

This option allows the engineer to view the panel location text. The text message is programmed in "Engineers menu 2", see page 47.

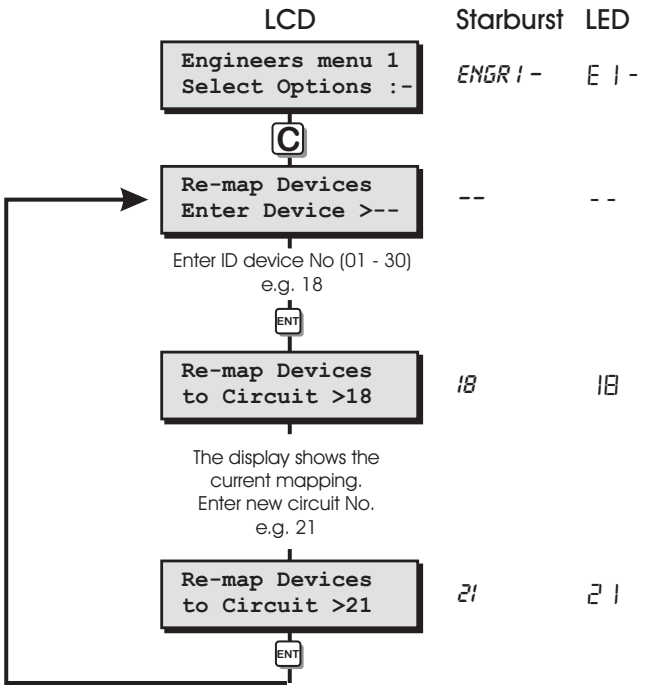


View Location Text Flowchart

Re-Map ID Devices (TS690ID) [1.C]

This option allows the engineer to re-map ID devices to circuits. By default all devices are mapped to their corresponding circuit, i.e. ID device 01 is mapped to circuit 01, ID device 28 is mapped to circuit 28, etc.

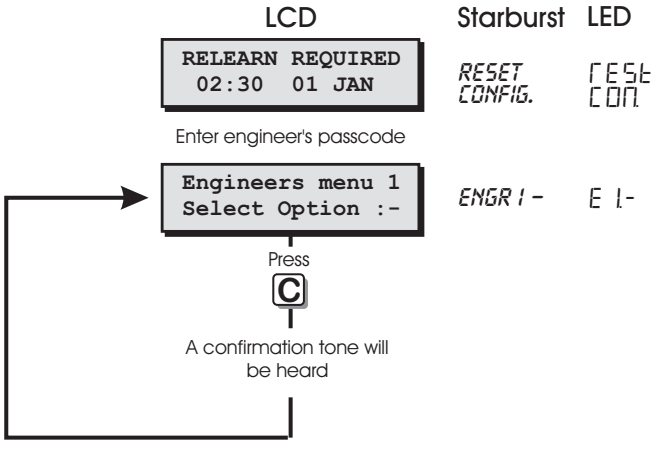
☞ *If a system relearn is required when selecting this option, the relearn is performed first (see "Relearn Hardware"). Once the relearn has been carried out re-selecting this option will select the "Re-Map ID Devices" option.*



Re-Map Circuits Flowchart

Relearn Hardware [1.C]

If the system hardware configuration has changed whilst in engineers mode, for example a remote keypad added or removed from the system. The system will show "RELEARN REQUIRED" when exiting from engineers mode. To clear this message you must re-select engineers menu 1 and press [C], the panel will generate an acceptance tone and all current hardware is re-logged on to the system. It is advisable that you confirm the new hardware by viewing the system log, *see page 44.*



Relearn Hardware Flowchart

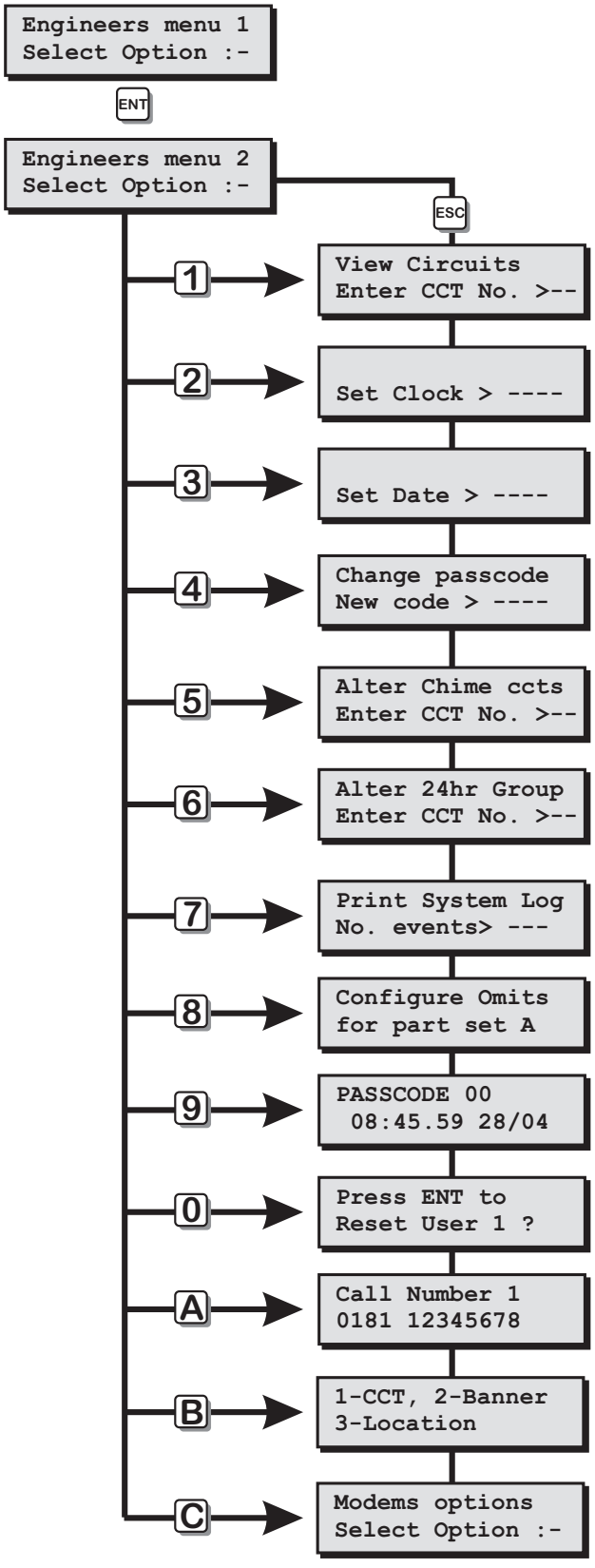
Engineer's Menu 2

Introduction

Engineer's menu 2 is selected by pressing the [ENT] key whilst Engineer's menu 1 is selected. Each menu option can be selected by pressing the relevant "Hot key".

Menu Contents

Hot key	Option	Page
1	View Circuits	42
2	Set System Time	42
3	Set System Date	42
4	Change Passcode	43
5	Chime Circuits	43
6	Configure Shunt Group	43
7	Print System Log	43
8	Configure Part Sets	44
9	View System Log	44
0	Reset User Code 1	46
A	Start Call Back	46
B	Custom Text Menu	47
C	Modem Options	47

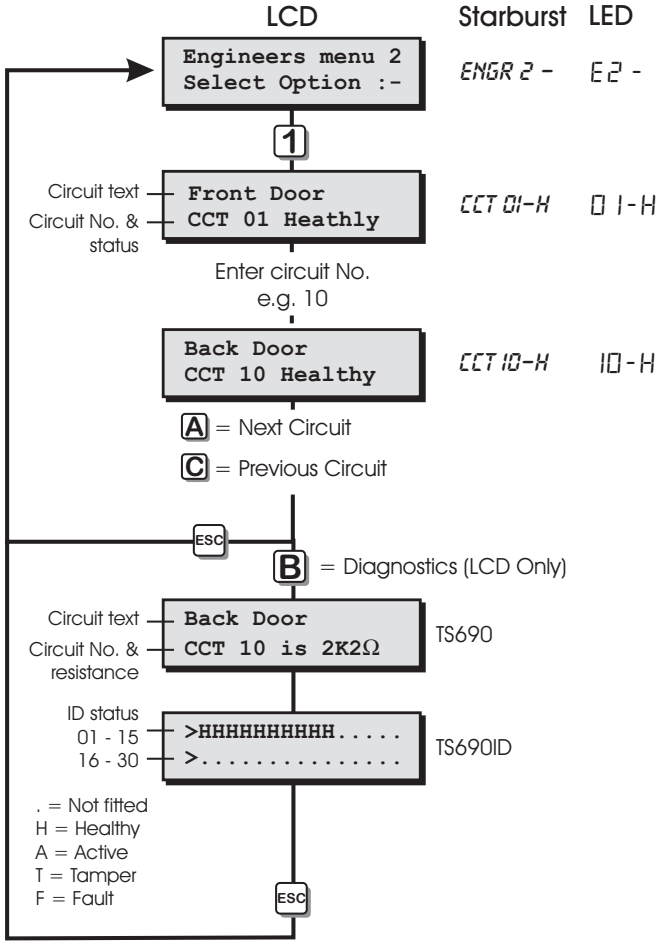


Engineer's Menu 2

View Circuits [2.1]

Each detection circuit may be viewed to ascertain its status. The circuit status conditions and resistance are shown below:

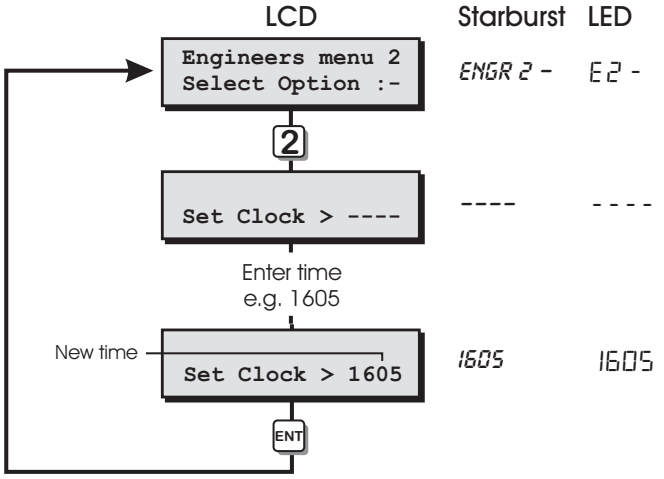
Status	Response	Normal	Min.	Max.
Healthy	None	2.2 KΩ	54 Ω	4.1KΩ
Active	Alarm	6.9 KΩ	4.1 KΩ	54 KΩ
Tamper	Tamper	∞	54 KΩ	∞
Shorted	Alarm	0 Ω	0 Ω	53 Ω



View Circuits Flowchart

Set System Time [2.2]

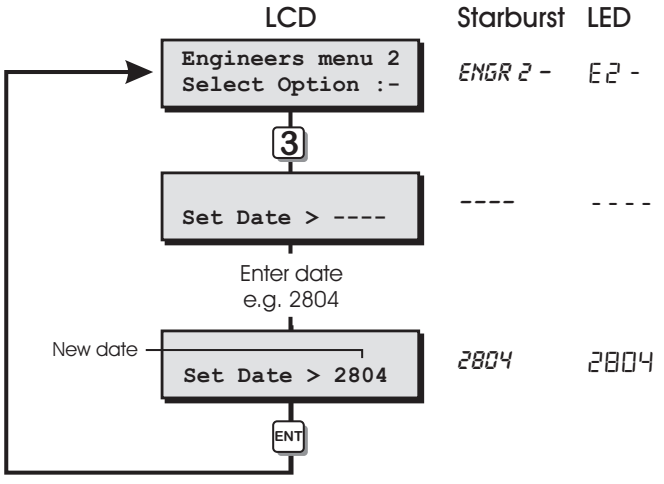
The system time is displayed in a 24hr format on all remote keypads and is also used to time stamp events in the system event log.



Set System Time Flowchart

Set System Date [2.3]

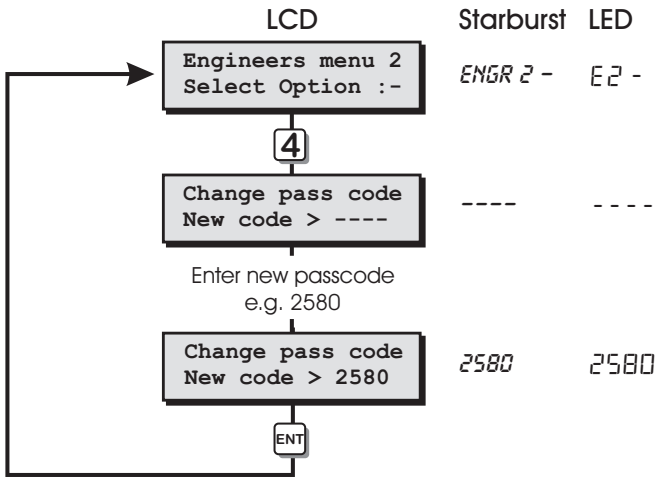
The system date is displayed in a day/date/month format on LCD remote keypads. it is also used to provide date stamps for events in the system log.



Set System Date Flowchart

Change Passcode [2.4]

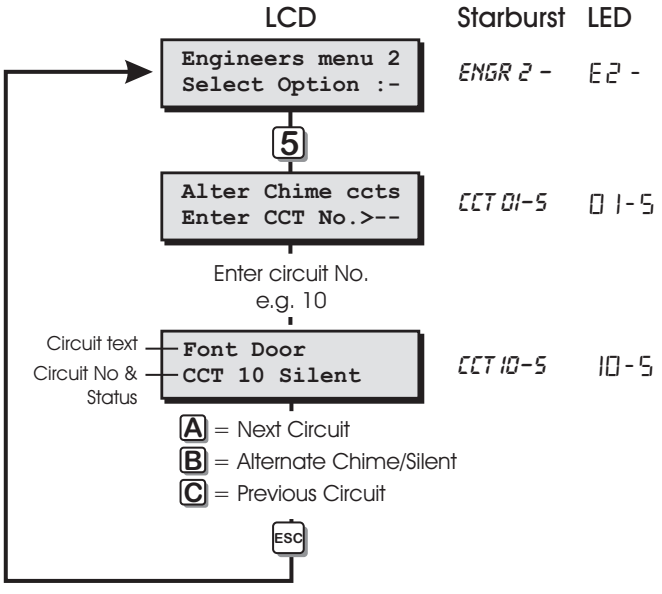
This option allows the engineer to change their passcode. The default passcode is 1234 but the installation engineer should change this to their own personal 4 digit passcode.



Change Passcode Flowchart

Chime Circuits [2.5]

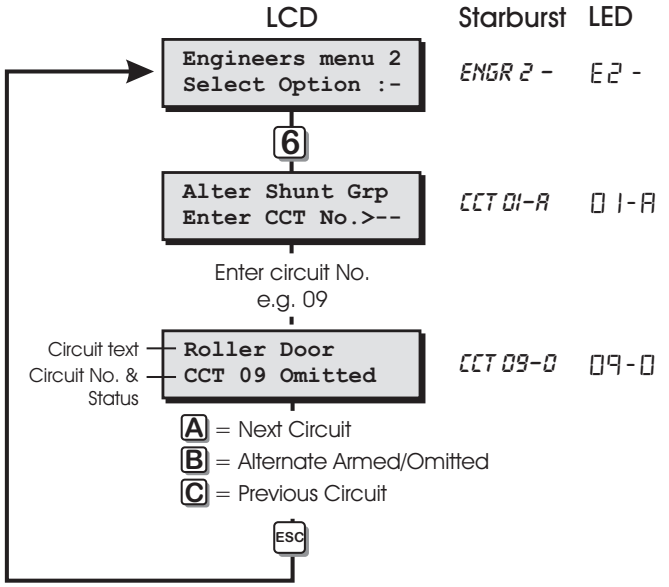
This option allows an alternative method of programming circuits as "chime".



Chime Circuits Flowchart

Alter Shunt Group [2.6]

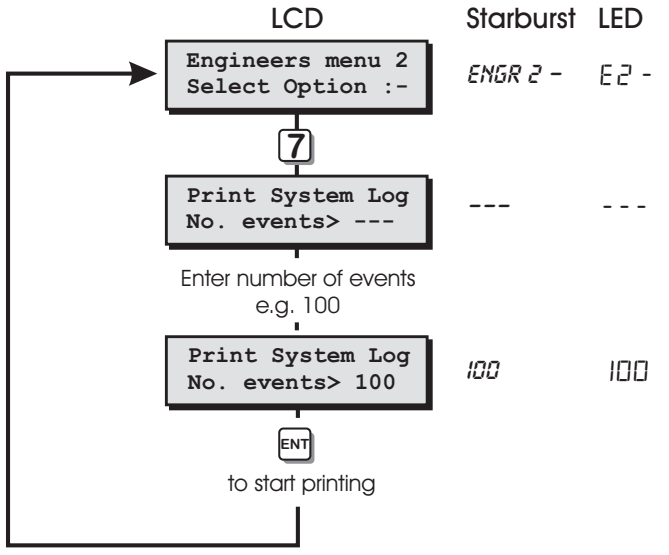
Circuits can be assigned to the shunt group. The shunt group can be isolated by using user menu 1 option 6 or by using a "Shunt" code see "User Manual".



Alter 24hr Group Flowchart

Print System Log [2.7]

The system log stores 700 events, if a printer is connected to the system it is possible to print a selected number of events. Once the printout has been started it can only be stopped by selected this option again and entering "000" for the number of events.

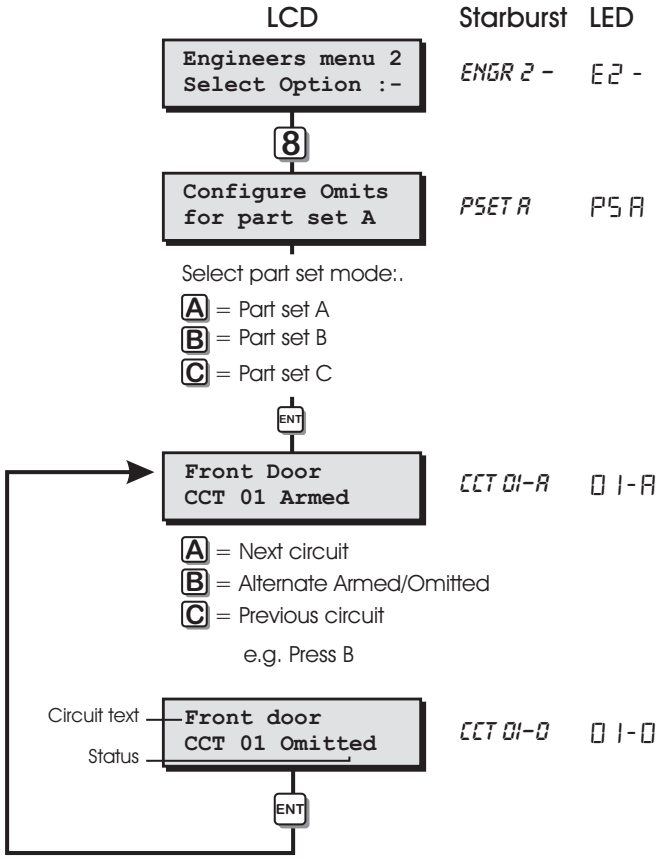


Print System Log Flowchart

Configure Part Sets [2.8]

The TS690 and TS690ID can be configured to have up to three parts set modes (Part Set A, Part Set B and Part Set C). This option allows the engineer to configure each part set mode. Within each part set mode you must designate which circuits will remain armed and which circuits will be omitted. When the user selects the relevant part set mode the system only arm the circuits that are designated as armed and isolate the circuits that are designated as omitted.

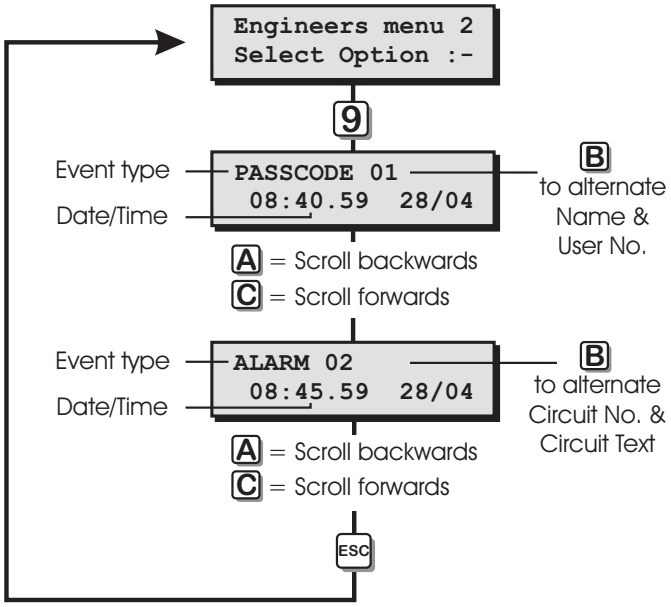
Only the circuit types "Night", "Final Exit" and "Exit terminator" can be designated as omitted.



Configure Omits Flowchart

View System Log [2.9]

The engineer can use this option to view the system log. The [A] and [C] keys allow you to scroll backwards and forwards through the log events.



View System Log Flowchart

Log Event Codes

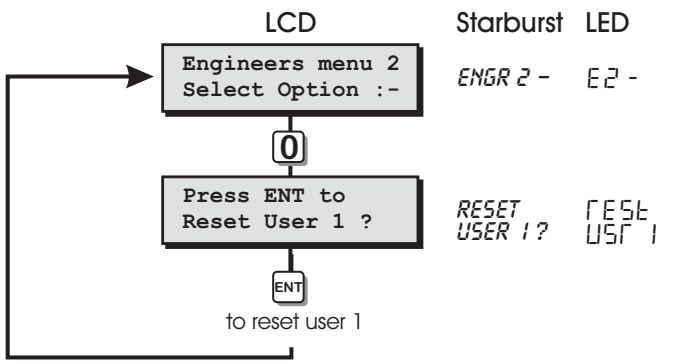
LCD	Starburst	LED	Description
AC OFF	A.C. OFF	PF	Mains power removed.
AC RESTORED	A.C. ON	Pr	Mains power restored
ACTION ALARM	ALM SENT	AA	Alarm activated when system is part-set.
ALARM 01-38	ALARM 01-38	CA01-38	Full alarm from circuit (01-38).
AUX/BELL TAMPER	AUX TAMP	At	Auxiliary tamper activated.
AUXILIARY 01-38	AUX 01-38	Au01-38	Auxiliary circuit activated.
BATTERY FAULT	BATT FLT	bF	Battery fault (voltage below 10.5V).
BELLS REARM			Time and date of bells reinstatement. Separate from System re-arm.
BELL TESTED	BELL TST	bt	External bell and strobes tested.
CALL BACK No. 01-03	C. BACK 01-03	Cb01-03	Modem making a call back to remote PC.
CCT OMITTED	OMIT'D 01-38	C001-38	Circuits omitted by the user at time of Setting.
CCTS ISOLATED	24HR OM'T	C 1	24Hr group omitted during the unset condition.
CCTS TESTED 01-38	TEST'D 01-38	tc01-38	The number of circuits tested during Walk Test.
CODE TAMPER	C.TMP 01-04	Pt01-04	Code tamper from keypad 01-04
COMMS ACTIVE	COM ACT	cA	Plug-on digicom active.
COMMS FAILED	COMS FLT	cF	Plug-on digicom failed to communicate.
COMMS SUCCESSFUL	COMS OK	cc	Plug-on digicom communicated successfully.
DATE CHANGED	DATE CHG	dc	System Date changed.
DEFAULT CODE	DEFLT 01	dF	User passcode (01) reset to 5678 by the engineer.
DELAY ALARM 01-38	DELAY 01-38	Ad01-38	Delayed alarm during a part-set condition.
DURESS 01-31	DUR'SS 01-31	du01-31	Duress alarm from user passcode (01-31).
ENTRY 01-38	ENTRY 01-38	En01-38	Entry timer started by circuit (01-38).
ENTRY ALARM 01-38	EN.ALM 01-38	EA01-38	Entry timed-out alarm from circuit (01-38).
FACTORY RESTART	FACT. RST	Fr	System "Factory Restarted".
FIRE ALARM 01-38	FIRE 01-38	FA01-38	Fire alarm circuit activated.
FIRST KNOCK 01-38	FIRST 01-38	Fn01-38	The first activation of a Double Knock circuit.
FUSE BLOWN 01	FUSE 01	Fb01	Control Panel 12V Auxiliary Fuse blown.
KEY SWITCH 01-38	KEY.SW 01-38	Sa01-38	Keyswitch operation from circuit (01-38).
LINE FAULT	LINE FLT	LF	Telephone line fault detected.
LINE RESTORED	LINE OK	Lr	Telephone line fault restored.
LOCKSET LOCKED			Lock switch placed in "locked" position.
LOCKSET UNLOCKED			Lock switch placed in "unlocked" position.
MODEM LOCK-OUT	LOCK-OUT	LO	Modem failed to communicate.
NO EVENT	NO EVENT	--	No log event.
OMITS REMOVED	OMIT REM	Or	Previously omitted circuits reinstated.

Log Event Codes

LCD	Starburst	LED	Description
PANEL LID TAMPER	LID TAMP	Lt	Control panel lid removed.
PART SET A/B/C	P.SET A/B/C	PSA/b/C	System Part-Set using one of the A, B, or C buttons.
PASSCODE 00-15	USER 00-15	Ur.00- 15	User passcode entered. (00-15).
REINSTATEMENT			Time and date for reinstatement.
RELEARN REQUIRED	RESET CONFIG.	rESt CON	Hardware relearn required see page 38.
REM REMOVED 01-04	R. REM 01-04	rr.01-04	Remote Keypad removed from system.
REM SERVICE CALL	R.S. CALL	SC	Remote service call via "Lineload" software and PC.
REM TAMPER 01-04	R. TMP 01-04	rt.01-04	Remote Keypad cover removed.
REMOTE ADDED 01-04	R. ADD 01-04	rA.01-04	Remote Keypad added to the system.
REMOTE RESET	REM RST	rc	System reset by "Remote Reset" passcode.
SERVICE CALL END	R.S. END	SE	Remote service call finished.
SERVICE REQUIRED	SERVICE	rS	Service required
SET FAIL	SET FAIL	SF	System failed to Set.
SYSTEM OPEN	SYS OPEN	OP	System fully unset.
SYSTEM RE-ARMED	RE-ARMED	rA	System re-armed all healthy circuits.
SYSTEM SET	FULL SET	FS	System fully set.
TAMPER 00	TAMP'R 00	tA.00	Short circuit on ID loop.
TAMPER 01-38	TAMP'R 01-38	tA.01-38	Tamper alarm from circuit.
TEST CCTS OFF	TEST OFF	to	All circuits taken off "Test"
TEST FAIL 01-38	T. FAIL 01-38	tF.01-38	Circuit failed during "Test".

Reset User Code 1 [2.0]

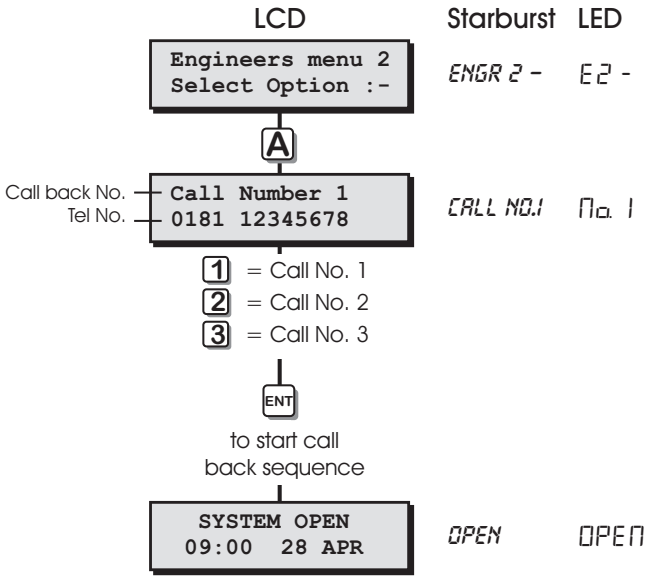
This option allows the installation engineer to reset the master user (user 01) back to the factory default code of "5678". This feature is useful when the master user has forgotten their passcode or has accidentally changed it without realising. This operation is logged.



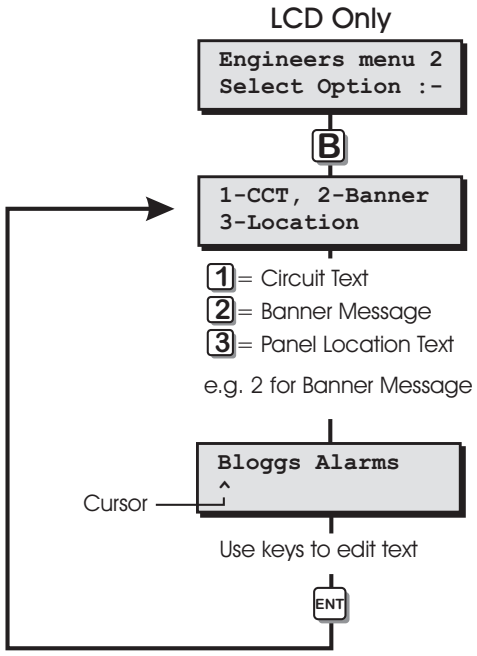
Reset User Code Flowchart

Start Call Back [2.A]

If the system is fitted with a digi-modem, it is possible for the installation engineer to initiate an upload sequence to a remote site (normally the alarm company). Once the communication link is established with the remote site, data can be sent and received from the control panel. This feature is only compatible with Menvier Lineload software version 2.5 or above.



Start Call Back Flowchart



Custom Text Flowchart

Custom Text Menu (LCD Only) [2.B]

This menu option allows the engineer to edit the following text messages:

Circuit Text

This option allows the engineer to program up to 16 characters of text to each circuit.

Banner Message

Normally when the system is unset the bottom line of the displays shows the time and date, and the top line is left blank. This option allows the engineer to program a 16 character banner message, which is shown on the top line of the display. This may be used to display the company's name etc.

Location Text

This option allows the engineer to program a 32 character location message. When "Engineers menu 1" is selected the engineer can view this message. This can be used to provide the location details for the control panel, e.g., "C P located in reception area", thus assisting service engineers unfamiliar with the site.

Details of text programming can be found on page 50.

Modem Options [2.C]

This option allows the engineer to access the following modem options:

Call Back No.1

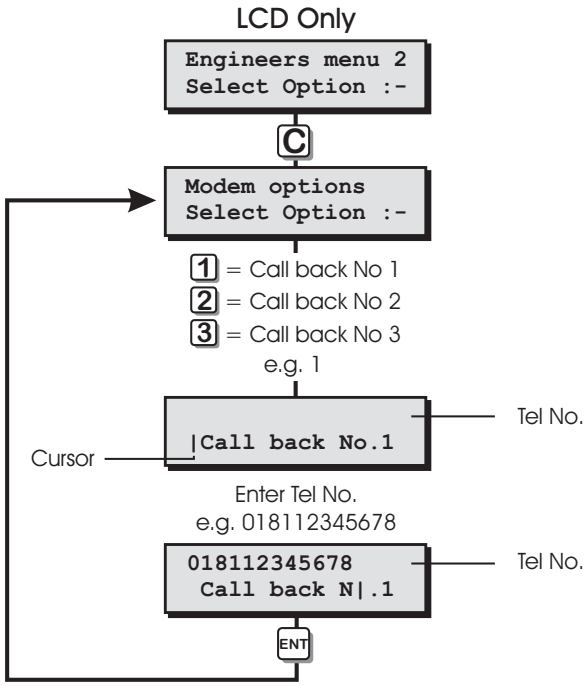
This option allows the first call back telephone number to be programmed.

Call Back No.2

This option allows the second call back telephone number to be programmed.

Call Back No.3

This option allows the third call back telephone number to be programmed.

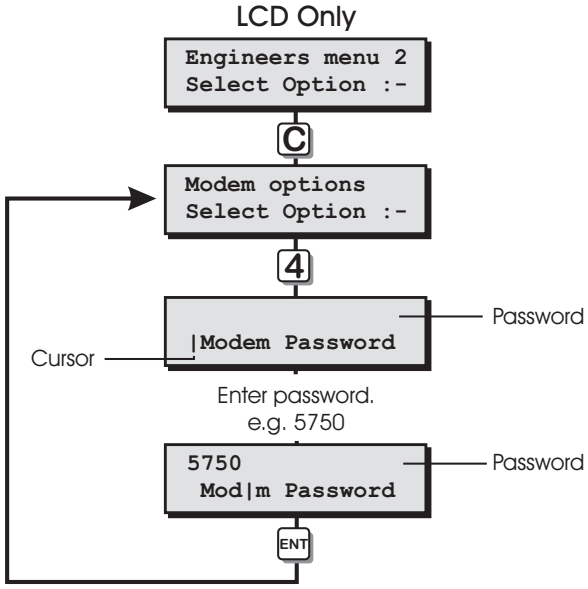


Modem Call Back Numbers Flowchart

Modem Password

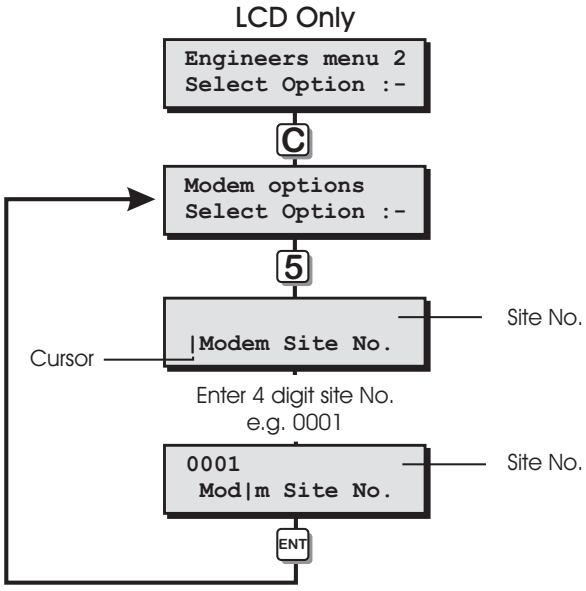
This option allows the modem password to be programmed. The "Modem Password" can be up to 16 character long and provides a means of security for remote communications. When using the "Lineload" software the "Modem Password" in the site profile must match the "Modem Password" that is stored in the control panel.

Modem Site No.



Modem Password Flowchart

This option allows the Modem site number to be programmed. The "Modem Site No." is a 4 digit number that is used as a site reference. When using the "Lineload" software the "Site Reference" number in the site profile must match the "Modem Site No." that is stored in the control panel.



Modem Site Number Flowchart

Program Digicom

This option allows the plug-on digi-modem (DC6) to be programmed.

Telephone Numbers 1 & 2

The telephone number of the alarm receiver.

Account Numbers 1 & 2

The account (chip) number that allocated to you by your central station.

Reports To Numbers 1 & 2

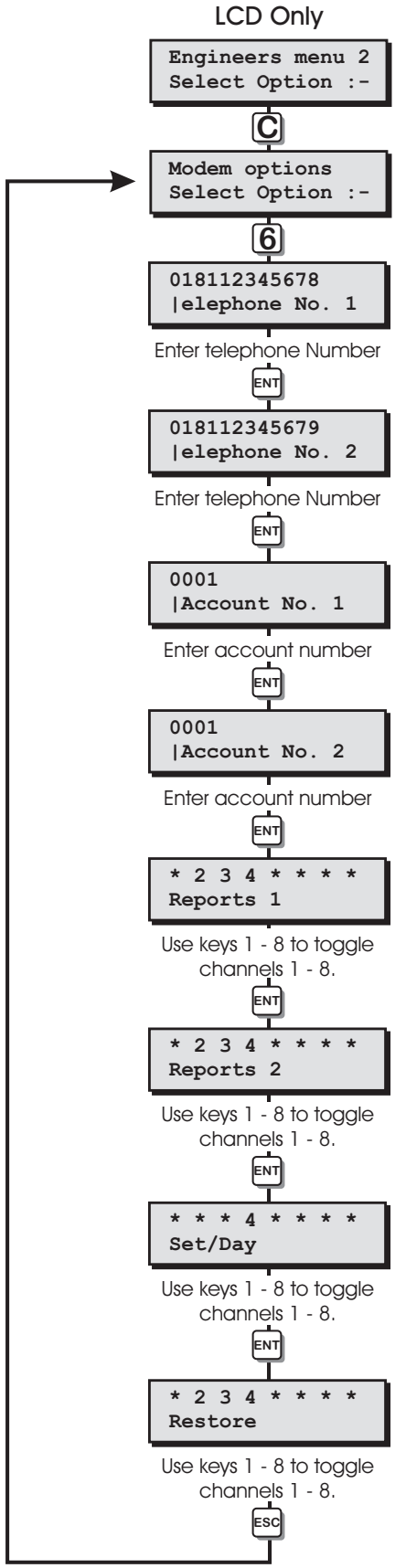
The individual channels that will report to the selected receiver number.

Set/Day Channels

The channels that will report a close (set) and open (day) conditions.

Restore Channels

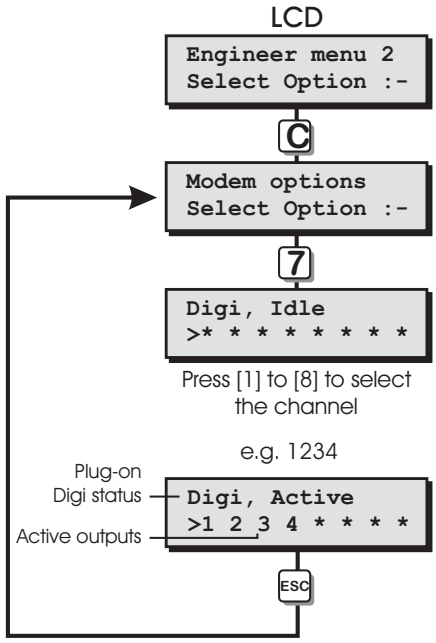
The channels that will report a restore (reset) condition when the input channel has returned to its original state.



Program Digicom Flowchart

Digicom Tests

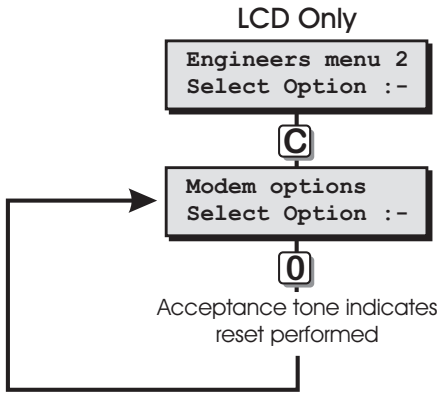
This option allows the engineer to test each channel on the plug-on digi-modem (DC6) and the five digi outputs on the main PCB.



Digicom Tests Flowchart

Reset Digi-Modem

When the system is powered up, the control panel automatically logs-on the digi-modem (DC6). If the device is changed or removed from the system you must either power the system down and back up again, or select this menu option in order for the digi-modem to be log-on again.



Reset Digi-modem Flowchart

Text Editing Keys

When programming any text the keys on the keypad function as shown below:

[1]	A	[2]	E	[3]	I
[4]	O	[5]	U	[6]	0 (Zero)
[7]	Cursor left	[8]	N/U	[9]	Cursor right
[ENT]	Accept text	[0]	Space	[ESC]	Abandon
[A]	Next letter	[B]	Cursor type	[C]	Prev. letter

Cursor Types

[^] This is the normal text editing cursor. Use the text editing keys as shown above.

[|] This is the number cursor. Use the numbered keys 0 - 9 to enter numeric data.

Common Key Sequences

Character	Key Sequence	Character	Key Sequence
A	1	U	5
B	1A	V	5A
C	1AA	W	5AA
D	2C	X	5AAA
E	2	Y	5AAAA
F	2A	Z	5AAAAA
G	2AA	:	1CCCCCCC
H	3C	;	1CCCCCC
I	3	<	1CCCCC
J	3A	=	1CCCC
K	3AA	>	1CCC
L	3AAA	?	1CC
M	4CC	@	1C
N	4C	!	0A
O	4	"	0AA
P	4A	#	0AAA
Q	4AA	$	0AAAA
R	4AAA	%	0AAAAA
S	5CC	&	0AAAAAA
T	5C		

Displaying Text on a Starburst

The TS790.STAR remote keypad is capable of displaying up to eight characters of text when it is connected to the TS690/TS690ID control panels. However the text can only be entered using a TS900 LCD remote keypad or via Lineload software.

In order for the TS790.STAR remote keypad to display the text, the text must have a "*Special Space Character*" embedded in the normal text line. The TS790.STAR remote will detect this character and display the preceding eight characters, e.g.,

LCD Display	Starburst Display
HALLWAY~PIR	HALLWAY
LOUNGE~PIR	LOUNGE
OFFICE~DOOR	OFFICE

The **~ character** shown in the above table has been used to represent the "Special Space *Character", the LCD keypad* will still display an actual space.

To enter the "Special Space Character" , move the cursor to the required position. Press [5] to select "U" then press [8] to change it to lower case, then press [A] 11 times. The display will now show a "*Special Space Character*".

Appendices

Contact ID Extended Reporting

Contact ID extended reporting is a new format which when used with the DC6 can be used to report circuit ID data, user ID etc. The central station alarm receiver must be capable of receiving "Contact ID extended Format" data.

Contact ID Reporting takes the following format:

CCCC Q EEE GG ZZZ

CCCC Customer account number.

Q Event qualifier, where E = new event (1) and R = restore (3).

EEE Event code (see table below).

GG Always 00.

ZZZ Circuit/Contact ID number reporting the alarm (001-038), or user number (001-015) for open/close reports. System status messages (Mains Fail, Walk Test, etc.) contain zeros in the ZZZ location.

Code	Description
110	Fire alarm
120	Panic (PA Code) alarm
121	Duress alarm
122	Silent PA alarm
123	Audible PA alarm
130	Intruder alarm (See Note)
134	Entry alarm
135	24 Hour alarm
137	Equipment tamper alarm
139	Alarm Confirmation
150	Auxiliary alarm
301	Mains failure
305	System reset (on-site or factory)
309	Battery test failure
382	Remote keypad removed
401	Open / Close by user
406	Alarm cancelled
409	Open / Close by keyswitch
572	Any CCT shunted
573	CCT "actively" omitted
601	EF Test Call
628	Engineer program mode cancelled

Contact ID Event Codes

Note: 130 becomes CCT Tamper if Engineer Menu 1.9 option 30 is set to "Tamper is Burg".

Resetting the Engineers passcode

If the installation engineer has inadvertently changed the engineers passcode or the passcode has been forgotten, the passcode can be reset back to 1234 without losing any other programmed data. This procedure can only be used providing a master user passcode is available:

1. Ensure that the system is unset and a user passcode is available.
2. Remove the cover from the control panel, this will cause a "Panel Lid tamper" alarm.
3. Ask the user to enter their passcode to silence the alarm.
4. Place the blade of a small screwdriver between the pins labelled "FACTORY RESTART". A multi-tone sound indicates the engineers passcode has been reset.
5. Replace the control panel cover. At the remote keypad enter 1234. The display will show "Engineers Menu 1". To change the engineer's passcode *see "Change Engineer's Passcode on page 43.*

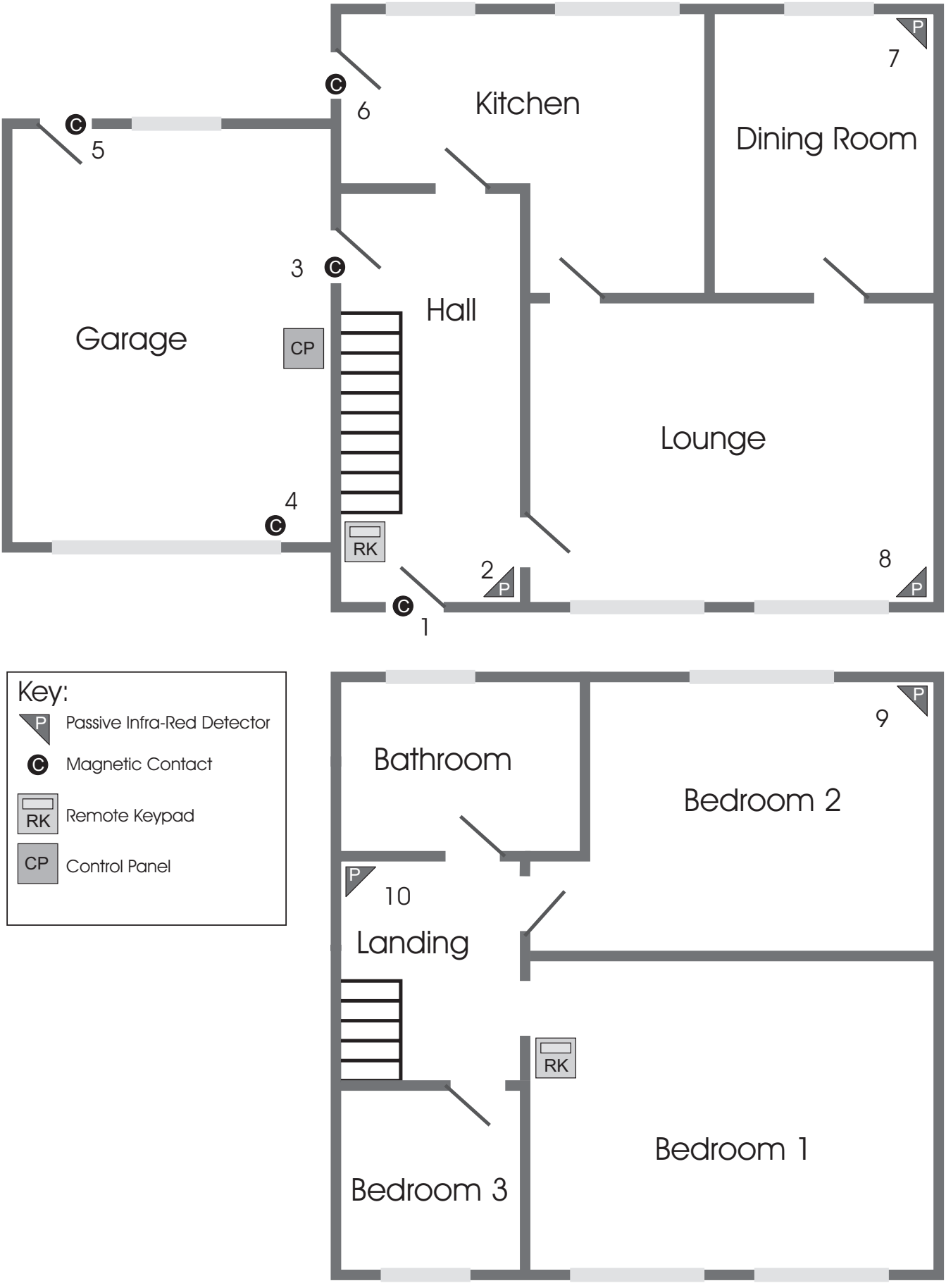


Figure 27. A Typical 3 Bedroom House

Part-Set Application Example

This application example shows how to configure the part set buttons to set different areas of a 3 bedroom house.

Using the drawing of a typical 3 bedroom house, the following part set modes are required:

Part Set A Circuits 01 through to 08 armed and circuits 09 and 10 omitted.

Part Set B Circuits 01 through to 09 armed and circuit 10 omitted.

Part Set C Circuits 01 through to 06 armed and circuits 07 through to 10 omitted.

1. First create a table listing the circuits that are required to be armed (A) and omitted (O) for each part set mode:

Circuit	Location	P-Set A	P-Set B	P-Set C
01	Front Door	A	A	A
02	Hallway detector	A	A	A
03	Hall door to garage	A	A	A
04	Garage door	A	A	A
05	Garage back door	A	A	A
06	Kitchen door	A	A	A
07	Dinning room PIR	A	A	O
08	Lounge PIR	A	A	O
09	Bedroom 2 PIR	O	A	O
10	Landing PIR	O	O	O

2. From the above table, program circuits 01-10 as omitted or armed for each part set mode *(see "Configure Omits" on page 44).*

☞ ***Circuit 02 (Hallway detector) must be programmed as a "Night" circuit with the "Entry" attribute. This will ensure that the entry timer is started when the occupants come downstairs to unset the system.***

Alarm Abort & Confirmation

Both the TS690 and TS690ID support "Alarm Abort" and "Sequential Confirmation". The alarm abort can be achieved by either sending an abort signal on a dedicated channel or by restoring the alarm channel.

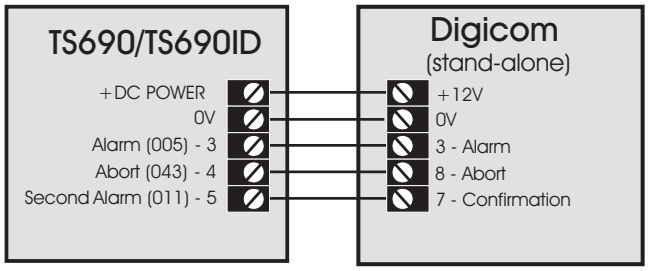


Figure 28. Alarm Abort & Sequential Confirmation

Alarm Abort Operation

When the alarm is triggered the system transmits a channel 3 (Alarm) to the ARC. If the system is unset within the "Abort Delay" period the abort output is triggered and an Abort signal is transmitted to the ARC. The alarm output is also restored.

Sequential Confirmation Operation

When the first alarm is triggered, the system transmits channel 3 (Alarm) to the ARC. If a different zone is activated the system transmits second alarm signal to the ARC.

1. If the DC6 is being used program the digicom channels as shown below, *see "Digi Channels", on page 26.* If a stand-alone digicom is being used program the digicom outputs as shown below, *see "Digi Outputs", on page 26.*

Channel No	Output Type
3	005 (Alarm)
4	043 (Abort)
7	011 (Alarm Confirm)

2. Program the "Abort Delay" timer to the required time (the default is 180 seconds), *see "System Timers", on page 31.*

Setup New Users

The TS690 and TS690ID allows up to 15 users to operate the alarm system, each user is assigned a user type and 4 digit passcode. User 01 is the master user which has a default setting of 5678.

User Types

The following user types are available:

Master

User 01-15 can be programmed as the type "Master". If the installation company has programmed the master user for full access, they will have access to all user menus and options. If the installation company has programmed the master user for limited access, they will NOT have access to "User menu 2" options 6 and 8.

Standard

Users 02-15 can be programmed as the type "Standard". This user type can set and unset the alarm system and access "User menu 1".

Holiday

Users 02-15 can be programmed as the type "Holiday". This user type can set and unset the alarm system and access "User menu 1". However, the passcode is automatically deleted from the system when a master user passcode is used to unset the alarm system. Normally the master user would assign this passcode type a temporary user whilst they are away on holiday.

Set Only

Users 02-15 can be programmed as "Set Only". This user type allows the alarm system to be set and access to "User menu 1".

Reset Only

Users 02-15 can be programmed as "Reset Only". This user type allows 24hr alarms to be reset and access to "User menu 1" option 1 to 7 and 9.

Duress

Users 02-15 can be programmed as "Duress". When this user type is entered a silent "Panic Alarm" (i.e., Bell and sounders not triggered) is transmitted to the central station via the telephone line and remote signalling device (if fitted). The user will still be able to set and unset the alarm system and access "User menu 1".

☞ *All other user code types will generate a "Duress" alarm if the passcode is entered with the first two digits reversed (e.g., for a standard passcode of 2580 enter 5280 to generate a "Duress" alarm). If required, this feature can be disabled by the installation company or by making the first two digits of the passcode the same.*

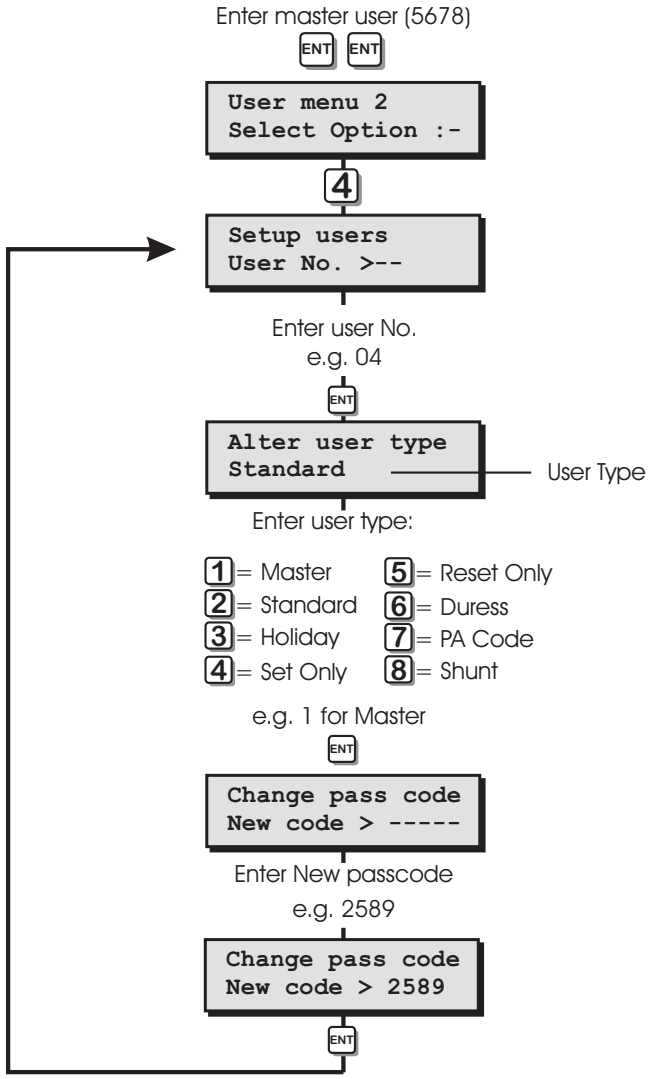
PA Code

Users 02-15 can be programmed as "PA Code". When this user type is entered a "Panic Alarm"[1] is transmitted to the central station via the telephone line and remote signalling device (if fitted). The external sounder(s) and strobe light(s) are also activated.

Shunt

Users 02-15 can be programmed as "Shunt". When this user type is entered the circuits assigned to the shunt group are isolated. When the passcode is re-entered the circuits assigned to the shunt group are reinstated.

☞ *This user type will be displayed as "Access" on the TS790 Starburst remote keypad.*



Setup New Users Flowchart

Quick Reference Engineers Menus

Engineers Menu 1

key	Options	Page
1	**Program Panel Outputs** 1 = Panel Output 1 (relay) 2 = Panel Output 2 (-ve) 3 = Panel Output 3 (+ve)	26
2	**Program Digicom Outputs** 1 = Channel 1 2 = Channel 2 3 = Channel 3 4 = Channel 4 5 = Channel 5	26
3	**Program Digicom Channels** 1 = Channel 1 5 = Channel 5 2 = Channel 2 6 = Channel 6 3 = Channel 3 7 = Channel 7 4 = Channel 4 8 = Channel 8	26
4	**Program Circuits & Attributes** **Circuit Types** 0 = Not Used 1 = Night 2 = 24 Hour 3 = PA Silent 4 = PA Audible 5 = Fire 6 = Auxiliary 7 = Final Exit 8 = Exit Term. 9 = Keyswitch **Circuit Attributes** 1 = Access 2 = D Knock 3 = Test 4 = Omit 5 = Reset 6 = Monitored 7 = Entry 8 = Chime **Lock Switch Attributes** F,A,B,C = wards L = Lockset M = Momentary I = Inverted	29
5	**System Timers** 00 = Abort Delay 12 = Monitor Dur. 01 = No Rearms 13 = Pset Bell Dly 02 = Settle Time 14 = Courtesy Dur. 03 = Pset Com Dly 15 = No Rem. Resets 04 = Exit time 16 = Modem Rings 05 = Entry Time 17 = CID Alarms 06 = Bell Dur. 18 = AC Off Delay 07 = Bell Dly 19 = Test Call 08 = Double Knock 20 = Confirmation 09 = Test Time 21 = Line Fault Dly 10 = 2nd Entry 22 = Service Time 11 = Part Set Entry 23 = Test Call At	31
6	**Setting Modes** 0 = Full Set 1 = Final Exit A = Part Set A 2 = Exit Terminator B = Part Set B 3 = Timed Exit C = Part Set C 4 = Instant 5 = Deferred 6 = Lock set	33
7	**System Print-Out**	33
8	**Remote Reset Algorithm** Enter Algorithm number 004 - 199.	34

key	Options	Page
9	**System Configuration** **No. Yes No** 00 = Bell is an SAB Bell is an SCB 01 = User 1 Limited User 1 Unlimited 02 = Fire Signals All Fire Signals Set 03 = Silent 24hr Ccts Audible 24hr Ccts 04 = Enable Duress Disable Duress 05 = Invert Abort O/P Normal Abort O/P 06 = Set with LF Can't Set with LF 07 = User Reset Engineer Reset 08 = Extended Format Fast Format 09 = Hi-Sec Engineer Lo-Sec Engineer 10 = Tamp User Reset Tamp Engr Reset 11 = Do Battery Test No Battery Test 12 = F.Exit Is Night F.Exit is Normal 13 = User Code + ENT User Code Only 14 = Show P.Set Info Show Time Only 15 = Dial Consecutively Dial Alternatively 16 = Set with AC Off No Set with AC Off 17 = Loud Chime Normal Chime 18 = Invert O/P 1 Normal O/P 1 19 = Invert Digi O/Ps Normal Digi O/Ps 20 = Online Keypad No Online Keypad 21 = Restore PID PID Alarms Only 22 = User Authorised No Authorisation 23 = Mimic Alm & Flt Mimic Alarm Only 24 = Monitor Off Hook Monitor Line Cut Only 25 = Answerphone Def. Normal Answer 26 = Send Open/Close No Open/Close 27 = Tampers always Tampers when set 28 = 24hr ccts always 24hr ccts when set 29 = Keypad PA Silent Keypad PA Audible 30 = Snders on Confirm Sndrs on First Alarm 31 = Bells on Confirm Bells on First Alarm 32 = Conf after Entry No Conf After Entry 33 = Confirmation On Confirmation Off 34 = Entry kpd locked Entry kpd free 35 = TA as Burg TA as TA 36 = Ent. conf after 2cct After 1 cct 37 = Unconf Usr Rst Unconf Eng Rst 38 = Keypad PA On Keypad PA Off	34
0	**Go To User Menu 1**	36
A	**Add/Clear ID Devices** A = Add ID Devices B = Toggle ID Status and View Circuits Mode C = Clear and Learn all ID Devices 0 = Toggle SLOW SCAN Mode and Normal	37
B	**View Location Text**	37
C	**Re-Map ID Devices & Relearn Hardware** **Re-Map ID Devices (TS690ID Only)** 1. Enter Device No 01 - 30 then ENT. 2. Enter Circuit No 01 - 38 then ENT. 3. Repeat for other devices. **Relearn Hardware** Clears the "RELEARN REQUIRED" / "RESET CONFIG" message and logs all devices on to system.	38

Quick Reference Engineers Menus

Engineers Menu 2

key	Options	Page
1	**View Circuits** A = Scroll Next Circuit C = Scroll Previous Circuit	42
2	**Set System Time** Enter time e.g. 1400 for 2.00pm	42
3	**Set System Date** Enter date e.g. 2804 for 28 April	42
4	**Change Passcode (Engineers)** Enter new passcode	43
5	**Chime Circuits** A = Scroll Next Circuit B = Toggle Chime / Silent C = Scroll Previous Circuit	43
6	**Alter Shunt Group** A = Scroll Next Circuit B = Toggle Armed / Omitted C = Scroll Previous Circuit	43
7	**Print System Log** Enter Number of events and press ENT	43
8	**Configure Part Sets** A = Scroll Next Circuit B = Toggle Armed / Omitted C = Scroll Previous Circuit	44
9	**View System Log** A = Scroll Backwards B = Toggle Name / Circuit Text C = Scroll Forwards	44
0	**Reset User Code 1** Press ENT to Reset User 1 to 5678	46
A	**Start Call Back** 1 = Call Back No. 1 2 = Call Back No. 2 3 = Call Back No. 3 ENT to start Call Back	46
B	**Custom Text Menu** 1 = Circuit Text 2 = Banner Message 3 = Panel Location Text	47
C	**Modem Options** 1 = Call Back No. 1 2 = Call Back No. 2 3 = Call Back No. 3 4 = Modem Password 5 = Modem Site No 6 = Program Digicom 7 = Test Digicom 0 = Reset Digicom	47

Output Types

No.	Output Type
000	Bell On
001	Strobe On
002	Switch 12V
003	Detector Reset
004	Walk Test
005	Alarm
006	P.A.
007	Fire
008	System Set
009	Code Accepted
010	24 Hour
011	Alarm Confirm
012	Courtesy Light
013	Engr On Site
014	Ccts Omitted
015	Auxiliary
016	Part Set C Selected
017	Part Set B Selected
018	Part Set A Selected
019	Full Set Selected
020	Tamper Fault
021	Line Fault
022	Mains Off
023	Exit / Entry
024	Test Fail
025	First Knock
026	Comms Failed
027	Comms Success
028	Comms Active
029	2nd Entry
030	Entry

No.	Output Type
031	Exit
032	Duress Alarm
033	System Part Set
034	Battery Fault
035	Set Fail
036	System Open
037	New Alarm
038	24hr Circuits Omitted
039	Modem Lock Out
040	Chime Mimic
041	Shunt Group Active
042	Timed Output
043	Abort
044	General Fault
045	Battery Test
046	Service Call
047	Full Set
048	Strobe on Set
049	Service Call
050	PC Output 1
051	PC Output 2
052	Sounder Control
053	ID Loop Shorted
054	Call Engineer
055	Always Off
056	Active Omit
100	Circuit Mimic 01
137	Circuit Mimic 38
200	Circuit Alarm 01
237	Circuit Alarm 38

Quick Reference User Menus

User Menu 1

key	Options
1	**Bell Test**
2	**Walk Test**
3	**Remote Reset** Enter Reply code + ENT
4	**Change Passcode (user)** Enter new passcode
5	**Enable Chime** 1 = Disabled 2 = Enabled 3 = Enabled in P/Set 4 = Enabled in Unset
6	**Omit Shunt Group**
7	**Omit Circuits** A = Scroll Next Circuit B = Toggle Armed / Omitted C = Scroll Previous Circuit
8	**Silent Set** 0 = Silent Full Set A = Silent Part Set A B = Silent Part Set B C = Silent Part Set C
0	**Full Set**
A	**Part Set A**
B	**Part Set B**
C	**Part Set C**

User Menu 2

key	Options
1	**View Circuits** A = Scroll Next Circuit C = Scroll Previous Circuit
2	**Set System Time** Enter time e.g. 1400 for 2.00pm
3	**Set System Date** Enter date e.g. 2804 for 28 April
4	**Setup New Users** 1. Enter user Number 01 - 15. 2. Select user type:- 1 =Master 2 = Standard 3 = Holiday 4 = Set Only 5 = Reset Only 6 = Duress 7 = PA Code 8 = Shunt 3. Enter 4 digit passcode. 4. Repeat for other users.
5	**Chime Circuits** A = Scroll Next Circuit B = Toggle Chime / Silent C = Scroll Previous Circuit
6	**Alter Shunt Group** A = Scroll Next Circuit B = Toggle Armed / Omitted C = Scroll Previous Circuit
7	**Print System Log** Enter Number of events and press ENT
8	**Configure Part Sets** A = Scroll Next Circuit B = Toggle Armed / Omitted C = Scroll Previous Circuit
9	**View System Log** A = Scroll Backwards B = Toggle Name / Circuit Text C = Scroll Forwards
0	**Enable Remote Service** B = Toggle enabled / Disabled
A	**Start Call Back** 1 = Call Back No. 1 2 = Call Back No. 2 3 = Call Back No. 3 ENT to start Call Back
B	**Circuit Text**

Notes

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08:15 and 12:45 Friday. Emergency service only
between 12:45 and 17:00 Friday.
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